

ENVIRONMENTAL AND SCIENCE JOURNALISM

University of North Carolina at Chapel Hill
School of Media and Journalism

MEJO 560, Spring 2018

MW 9:30 a.m. - 10:45 a.m., Carroll Hall 340A

<http://mj.unc.edu/medicaljournalism>

Tom Linden, M.D.	Office Hours:
328 Carroll Hall	Wednesday, 3:30 - 4:30 p.m., or whenever office door is open
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Course Description & Goals

The purpose of this course is to teach an appreciation of environmental and science journalism and provide you with skills to report on environmental and science news for a variety of media, principally print or text, but also video and audio.

As a participant in this course, you'll learn the following:

- How to find news value in scientific research reports.
- How to integrate scientific statistics from source materials into news reports.
- How to research, report and write environmental and science news stories for popular media.

Reading

Readings for the course include a text about medical statistics, a classic book on writing well, a compendium of great writing about health and medicine from the New York Times, a 2016 anthology of the best science and nature writing published the previous year, a primer about science writing from masters in the field, and a memoir about race and medicine. Please complete the reading assignments **before** the appropriate classroom discussions. In addition to the list below, I'll supply additional source materials and articles from various publications. Most of the following books are available at the UNC student store and copies of most of the books will be on reserve in the Park Library (second floor) in the School of Media & Journalism. Please note that the books on reserve in the Park Library may be earlier editions that can be substituted for current editions. Students should also consult the [AP Stylebook](#) for proper style and usage for all written assignments.

- 1) Blum, Deborah, Mary Knudson & Robin Marantz Henig, editors. [A Field Guide for Science Writers \(Second Edition\)](#), Oxford University Press (paperback), © 2005, \$19.95, ISBN: 0-19-5174992.
- 2) Cohn, Victor and Lewis Cope with Deborah Cohn Runkle. [News & Numbers: A Writer's Guide to Statistics](#), Wiley-Blackwell (paperback), Third Edition, © 2012, 181 pp., ISBN: 978-1-4051-6096-4.
- 3) Linden, Tom & the Writers of The New York Times. [The New York Times Reader: Health & Medicine](#), © 2011, \$24.95, 292 pp., ISBN: 978-1604264821.
- 4) Stewart, Amy, editor. [The Best American Science and Nature Writing 2016](#), Mariner, © 2016, 292 pp., ISBN: 978-0544748996, \$14.95.
- 5) Tweedy, Damon, [Black Man in a White Coat](#), Picador, \$14.19, © 2015, 304 pp., 978-1250105042.
- 6) Zinsser, William. [On Writing Well: The Classic Guide to Writing Nonfiction \(30th Anniversary Edition\)](#), Collins, © 2006, 336 pp., ISBN: 978-0-06-089154-1.

Also, starting with the class for Wednesday, January 31, students should begin reading the **print version** of the Tuesday *Science Times* section of the New York Times. On the assigned dates, please bring the *Science Times* section to class. Consult the course schedule below for the exact dates for which the section should be read. Please note that the online version of the New York Times is not an acceptable substitute since the online and print versions do not necessarily have the same content. The New York Times is available in the UNC Student Store and is also available at a reduced rate by subscription. To subscribe, you can call 1-800-NYTIMES and ask for college subscriptions. Receiving the print edition by subscription also gives you unlimited online access.

Participation

A working science journalist typically talks and discusses relevant issues with colleagues and others before preparing his or her report. This class will be no different. I'll expect you to share your thoughts with your peers and with me. Classroom discussion will help clarify your ideas and sharpen your focus. You'll also be posting all written assignments on [Sakai](#) where your classmates will critique your work before you submit it to Dr. Linden for a grade.

Grading Rubric

Each student will be responsible for one 15- to 20-minute presentation on assigned reading. Dr. Linden will assign the presentations at the beginning of the second class meeting. As critical thinking and discussion with peers are integral to the work of journalists, classroom participation and your presentation will count for **20 percent** of your final grade. Your classroom participation grade will be based on the quality (not necessarily the quantity) of your discussion and will be based on the following criteria:

- 1) Whether it's clear that you've read and thought about the readings.
- 2) Your ability to integrate ideas gleaned from the readings into the larger context of environmental and science reporting.

To sharpen your writing skills, you'll write two original stories and revisions of each of those two stories. The four writing assignments will count for **80 percent** of your final grade. Each story's grade will be determined as follows (with 100 points possible for each assignment):

- 1) A maximum of 40 possible points for reporting. Key considerations in grading reporting include the following:

- a) Did you interview a variety of sources, each of whom was knowledgeable about the focus of your story and/or able to present a unique scientific or human interest perspective?
- b) Did you consult primary sources (like journal articles or government publications, e.g.)?
- c) Have you attributed information (other than common knowledge) to named and reliable sources?

- 2) A maximum of 40 possible points for writing. Consideration will be given to the following:

- a) Did you write clearly?
- b) Was your writing tight?
- c) Did you follow the writing guidelines enumerated by William Zinsser in his book, "On Writing Well"? If not, can you justify why not?
- d) Does your story flow well?
- e) Did you stick to your six-word message (as discussed in class)?
- f) Did you follow style rules enumerated in the AP Stylebook?

- 3) A maximum of 20 possible points will be given for the following:

- a) Is this story publishable with only minor edits?

Grading Scale (for undergraduates)

94 - 100 A
91 - 93 A-
88 - 90 B+
84 - 87 B
81 - 83 B-
78 - 80 C+
74 - 77 C
71 - 73 C-
68 - 70 D+
64 - 67 D
63 and below F

Grading Scale (for graduate students)

93 - 100 Honors
74 - 92 Pass
63 - 73 Low Pass
63 and below F

After one unexcused absence, each absence will result in a drop of one letter grade in the course. This is an upper division/graduate-level seminar, and your presence and contribution are essential. You **cannot** pass the course with more than two unexcused absences.

Assignments

To succeed in environmental and science journalism, you must write well. Good writing requires an understanding of the material and the ability to communicate ideas simply and clearly.

All assignments must be posted on the Sakai discussion site at least two days before they're due in class. Late assignments will not be accepted without **prior** permission. Even with prior permission, submission of late assignments will result in a 10-point deduction per day. Not turning in an assignment within two days of the due date will result in a zero grade. Misspelling of proper names will result in a 10-point deduction per misspelling. Misspelling of other words will result in a two-point deduction for each word misspelled. We'll follow the print style guidelines of the AP Stylebook. If you intend to pursue journalism as a career, I strongly encourage you to purchase a copy of the AP Stylebook. As per the usual practice in the School of Media & Journalism, a major factual error will result in a failing grade for that particular assignment. Fabricating sources or quotations or engaging in plagiarism will constitute a violation of the Honor Code (for more information about the UNC Honor Code, go to <http://instrument.unc.edu>).

Exams

There will be no midterm or final exam.

How To Succeed in This Course

- Attend classes consistently.
- Complete readings *before* the appropriate classroom discussions.
- Participate actively in class discussions.
- Ask the Professor questions either during class or during office hours if you're unclear about any aspect of the course.
- Turn in stories on time, both on Sakai and in class.
- Check online syllabus frequently throughout the semester (preferably before each class) as assignments and topics may change without e-mail notice.

Course Schedule

WEEK 1:

JAN. 10: INTRODUCTION TO ENVIRONMENTAL AND SCIENCE JOURNALISM

* Turn in Student Data Sheet that was emailed to you.

Reading for this class session:

Linden, Thomas, "[Learning To Be a Medical Journalist](#)," Nieman Reports, Vol. 57, No. 2, Summer 2003, pp.66-67.

Linden, Tom, "[The New York Times Reader: Health & Medicine](#)," foreword, preface and introduction.

WEEK 2:

JAN. 15: **Martin Luther King Jr. Holiday (no class)**

JAN. 17: A GUIDE TO WRITING NONFICTION

* Learn the basics of writing nonfiction.

Reading for this class session:

Zinsser, William, [On Writing Well](#), Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9 10, 11, 12.

WEEK 3:

JAN. 22: ETHICS OF ENVIRONMENTAL, SCIENCE AND MEDICAL JOURNALISM

Reading for this class session:

"Aiding Those in Distress," Association of Health Care Journalists, <http://www.healthjournalism.org/secondarypage-details.php?id=898>.

Code of Ethics for Science Writers, www.nasw.org/code-ethics-science-writers.

Holtz, Andrew, "[Update: Conflict of interest/funding disclosure missing from half of news releases we've reviewed -- a case study on why that's important](#)," Health News Review, August 18, 2016.

Reporters Committee for Freedom of the Press, "A Reporter's Guide to Medical Privacy Law," <http://www.rcfp.org/reporters-guide-medical-privacy-law>.

Scanlan, Chip, "[The First Peril: Fabrication](#)," Poynter.org, (Adapted from *Reporting and Writing: Basics for the 21st Century*, Oxford University Press, 2000). Updated Nov. 12,4, 2002.

SPJ Code of Ethics: <http://www.spj.org/ethicscode.asp>

Statement of Principles of the Association of Health Care Journalists: <http://healthjournalism.org/secondarypage-details.php?id=56>

"Understanding HIPAA: A Brief Overview," Association of Health Care Journalists, <http://healthjournalism.org/resources-tips-details.php?id=12#.Vcomq0W2gso>

Zietman, Anthony L., "[Falsification, Fabrication, and Plagiarism: The Unholy Trinity of Scientific Writing](#)," International Journal of Radiation Oncology, Vol. 87, No. 2, 1 October 2013, pp. 225-227.

JAN. 24: INTERPRETATION OF SCIENCE STATISTICS -- guest speaker, Steven Meshnick, M.D., Professor and Associate Chair, Department of Epidemiology, UNC Gillings School of Global Health

Reading for this class session:

Browse [Retraction Watch](#).

Cohn & Cope, [News & Numbers: A Writer's Guide to Statistics](#), Part I, Learning the Basics, pp. 1-68.

Haelle, Tara, "[8 Easy, Meaningful New Year's Resolutions for Better Health](#)," New York Times, Jan. 2, 2018.

Labos, Christopher, "It Ain't Necessarily So: Why Much of the Medical Literature Is Wrong," Medscape.com, Sept. 9, 2014. (posted in Sakai -> Resources).

Russell, Cristine, "Risk Reporting," in Blum et al., editors, [A Field Guide for Science Writers](#), Chapter 36, pp. 251-256.

WEEK 4:

JAN. 29: INTERPRETATION OF MEDICAL STATISTICS (cont.)

Reading for this class session:

Browse the web sites of the World Health Organization's [International Clinical Trials Registry Platform \(ICTRP\)](#) and the National Institutes of Health's [clinicaltrials.gov](#).

Cohn & Cope, [News & Numbers: A Writer's Guide to Statistics](#), Part II, pp. 70-169.

Leaf, Clifton, "[Do Clinical Trials Work?](#)" New York Times, July 13, 2013.

Kolata, Gina, online at "[Forty Years' War -- Advances Elusive in the Drive to Cure Cancer](#)," also in [New York Times Reader](#), pp. 156-162.

JAN. 31: A PRIMER ON SCIENCE NEWS STORIES

Reading for this class session:

"Science Times" section from Tuesday, Jan. 30, [New York Times](#).

Linden, [New York Times Reader](#), Chapter 1.

Linden, "The Role of Journalists in Reporting on Emerging Infectious Diseases," North Carolina Medical Journal, Vol. 77, No. 5, pp. 331-332. (download from Sakai -> Resources)

Assignment #1: 900-word news story due Monday, Feb. 19. Please upload the draft of your story to Sakai -> Forums -> Assignment #1 by Saturday, Feb. 17, at 6 p.m.

WEEK 5:

FEB. 5: SCIENCE NEWS STORIES

Reading for this class session:

Blum et al., editors. [A Field Guide for Science Writers](#), Chapters 1, 2, 4, 5, 6.

"[Covering the Zika virus and local outbreaks: Journalism guides and tips](#)," Shorenstein Center on Media, Politics and Public Policy, Harvard Kennedy School, updated Aug. 24, 2016.

Haelle, Tara, "[Freelancers face unique conflict-of-interest dilemmas](#)," Association of Health Care Journalists," Aug. 10, 2015.

Linden, [New York Times Reader](#), "A Conversation with Gina Kolata, pp. 216-221.

Oransky, Ivan, "[If you must use embargoes, here's how to do it right](#)," download pdf file from Epidemiology Biostatistics and Public Health, 2013, Vol. 10, No. 3.

FEB. 7: SCIENCE NEWS STORIES (cont.)

Reading for this class session:

"Science Times" section from Tuesday, Feb. 6, [New York Times](#).

Linden, [New York Times Reader](#), Chapters 2 & 3.

Oransky, Ivan, "[How Publish or Perish Promotes Inaccuracy in Science--and Journalism](#)," AMA Journal of Ethics, December 2015, Vol. 17, Number 12: 1172-1175.

Assignment #1: 900-word news story due Monday, Feb. 19. Please upload the draft of your story to Sakai -> Forums -> Assignment #1 by Saturday, Feb. 17, at 6 p.m.

WEEK 6:

FEB. 12: ENVIRONMENTAL REPORTING

Reading for this class session:

Christy, Bryan, "Tracking Ivory," in "The Best American Science and Nature Writing 2016," pp. 3-19.

Ehrlich, Gretel, "Rotten Ice," in "The Best American Science and Nature Writing 2016," pp. 25-43.

Kolbert, Elizabeth, "The Siege of Miami," in "The Best American Science and Nature Writing 2016," pp. 125-139.

FEB. 14: ENVIRONMENTAL REPORTING -- guest speaker via Skype: Antonia Juhasz, freelance science writer

Assignment #1 due today.

Reading for this class session:

Blum et al., editors. A Field Guide for Science Writers, Chapters 32 & 33, pp. 222-235.

Juhasz, Antonia, "Thirty Million Gallons Under the Sea," in "The Best American Science and Nature Writing 2016," pp. 101-114.

Assignment #1: 900-word news story due Monday, Feb. 19. Please upload the draft of your story to Sakai -> Forums -> Assignment #1 by Saturday, Feb. 17, at 6 p.m.

WEEK 7:

FEB. 19: CRITIQUE of ASSIGNMENT #1

Assignment #2:

Rewrite of assignment #1 (news story) due Wednesday Feb. 28 on Sakai -> Forums -> Assignment #2. Final rewrite to be turned in to class on Monday, March 5.

FEB. 21: ENVIRONMENTAL RESTORATION OF THE GULF OF MEXICO -- Skype interview with Mark Bisgeier, general counsel for RestoretheGulf.gov

Reading for this class session:

Read "History" of the [Gulf Coast Ecosystem Restoration Council](http://GulfCoastEcosystemRestorationCouncil.org).

Blum et al., editors. A Field Guide for Science Writers, Chapters 30, 31, 34, 35.

WEEK 8:

FEB. 26: COMMENTARY: COLUMNS, ESSAYS AND BLOG POSTING, Skype interview with Alasdair Wilkins, science journalist and editor (unconfirmed)

Reading for this class session:

Barish, David, "[God, Darwin and My College Biology Class](http://www.nytimes.com/2014/09/27/us/god-darwin-and-my-college-biology-class)," New York Times, Sept. 27, 2014.

Collins, Gail, "[The Fight for Unplanned Parenthood](http://www.nytimes.com/2015/09/18/us/the-fight-for-unplanned-parenthood)," New York Times, Sept. 18, 2015.

Linden, New York Times Reader, Chapter 12, pp. 247-261 & Chapter 13, pp. 262-268.

Wilkins, Alasdair, "[I lost 100 pounds in a year. My 'weight loss secret' is really dumb.](http://www.vox.com/2015/7/7/10711111/i-lost-100-pounds-in-a-year-my-weight-loss-secret-is-really-dumb)" Vox, July 7, 2015.

Assignment #2:

Rewrite of assignment #1 (news story) due Saturday, March 3, at 6 p.m. on Sakai -> Forums -> Assignment #2. Final rewrite to be turned in to class on Monday, March 5.

FEB. 28: COMMENTARY: ESSAYS (cont.)

Reading for this class session:

Berger, Marilyn, "[Lewis Thomas, Whose Essays Clarified the Mysteries of Biology, Is Dead at 80](http://www.nytimes.com/1993/12/04/science/lewis-thomas-whose-essays-clarified-the-mysteries-of-biology-is-dead-at-80)," New York Times, Dec. 4, 1993.

Kakutani, Michiko, "[Oliver Sacks, Casting Light on the Interconnectedness of Life](http://www.nytimes.com/2015/08/30/science/oliver-sacks-casting-light-on-the-interconnectedness-of-life)," New York Times, Aug. 30, 2015.

Sacks, Oliver, "[My Periodic Table](http://www.nytimes.com/2015/07/24/science/my-periodic-table)," New York Times, July 24, 2015.

Thomas, Lewis, The Medusa and the Snail, chapters entitled "The Medusa and the Snail," "The Wonderful Mistake," "Ponds," "To Err Is Human" and "On Cloning A Human Being" (all chapters found in electronic link in Resources folder in Sakai).

Assignment #2:

Rewrite of assignment #1 (news story) due Saturday, March 3, at 6 p.m. on Sakai -> Forums -> Assignment #2. Final rewrite to be turned in to class on Monday, March 5.

WEEK 9:

MARCH 5: CRITIQUE OF ASSIGNMENT #2

Assignment #2 (rewrite of Assignment #1) due today.

MARCH 7: HISTORICAL STORIES

Reading for this class session:

"Science Times" section from Tuesday, March 6, New York Times.

Altman, Larry, "For 3 Nobel Winners, a Molecular Mystery Solved," New York Times, Oct. 7, 2013.

Linden, New York Times Reader, Chapter 9, pp. 183-197.

McNeil Jr., Donald G., "In Reaction to Zika Outbreak, Echoes of Polio," New York Times, Aug. 29, 2016.

Snyder, Timothy, "The Next Genocide," New York Times, Sept. 12, 2015.

SPRING BREAK (March 10-18)

WEEK 10:

MARCH 19: PERSPECTIVE STORIES

Reading for this class session:

Blum et al., editors. A Field Guide for Science Writers, Chapters 17 & 20.

Harmon, Amy, "A Dying Young Woman's Hope in Cryonics and a Future," New York Times, Sept. 12, 2015.

Linden, New York Times Reader, Chapter 8, pp. 156-182.

Assignment #3: Essay due Wednesday, March 28. Please upload the draft of your essay to Sakai -> Forums -> Assignment #3 DRAFT by 6 p.m., Monday, March 26.

MARCH 21: ESSAYS (cont.)

Reading for this class session:

Linden, New York Times Reader, Chapter 13, pp. 262-268.

Sacks, Oliver, "Sabbath," The New York Times, August 14, 2015.

Assignment #3: Essay due Wednesday, March 28. Please upload the draft of your essay to Sakai -> Forums -> Assignment #3 DRAFT by 6 p.m., Monday, March 26.

WEEK 11:

MARCH 26: PROFILES, OBITUARIES & EXPLANATORY STORIES

Reading for this class session:

Butler, Katy, "What Broke My Father's Heart," New York Times, June 18, 2010.

Linden, New York Times Reader, Chapter 5, pp. 92-98, Chapter 6, 103-119, Chapter 7, pp. 132-136, 138-143.

Linden, New York Times Reader, "A conversation with Benedict Carey," pp. 99-101 and 152-155.

Assignment #3: Essay due Wednesday, March 28. Please upload the draft of your essay to Sakai -> Forums -> Assignment #3 DRAFT by 6 p.m., Monday, March 26.

MARCH 28: CRITIQUE OF ASSIGNMENT #3

Assignment #3 (essay) due today.

WEEK 12:

APRIL 2: SCIENCE WRITING FOR MAGAZINES

Reading for this class session:

Stewart, Amy, editor. The Best American Science and Nature Writing 2016, pp. 20-24, 44-52, 79-100.

APRIL 4: Guest speaker - Rose Hoban, publisher of NC Health News (unconfirmed)

Reading for this class session:

TBD

WEEK 13:

APRIL 9: REPORTING FOR THE ELECTRONIC MEDIA

Reading for this class session:

Linden, Tom, "Medical Reporting for the Electronic Media," in Barbara Gastel's Health Writer's Handbook (Second Edition), chapter in Sakai's "Resources" folder.

Assignment #4: Rewrite of Assignment #3 due Wednesday, April 18. Please upload the draft of your essay to Sakai -> Forums -> Assignment #4 DRAFT by 6 p.m., Monday, April 16.

APRIL 11: REPORTING FOR THE ELECTRONIC MEDIA, Skype interview, Dan Childs, Managing Editor, ABC News Medical Unit (unconfirmed)

Viewing:

Best of Dan Childs' Sleepless Saga

<http://abcnews.go.com/GMA/video/day-best-dan-childs-sleepless-saga-35288730>

Fired Up! Watch People Eat One of the World's Hottest Peppers

<http://abcnews.go.com/Health/video/fired-watch-people-eat-worlds-hottest-peppers-38772694>

"This Week": Opting Out on Vaccines?," ABC News, April 6, 2014.

"Powerful Norovirus Spreads Across America," ABC News, Jan. 25, 2013.

"What is the Best Way to Sneeze?" ABC News, Jan. 28, 2014.

WEEK 14:

APRIL 16: RACE AND MEDICINE - guest speaker, Damon Tweedy, M.D., Duke psychiatrist and author of "Black Man in a White Coat" (unconfirmed)

Reading for this class session:

Tweedy, Damon, Black Man in a White Coat.

APRIL 18: CRITIQUE OF ASSIGNMENT #4

Assignment #4 (essay rewrite) due today.

WEEK 15:

APRIL 23: RADIO REPORTING

Listen to "My Lobotomy," "Mastodons in Manhattan," and "An Ill Newborn, A Loving Family And A Litany Of Wrenching Choices."

APRIL 25: RADIO REPORTING (cont.) - guest lecturer, Adam Hochberg, NPR correspondent and Lecturer, UNC School of Media and Journalism

FINAL EXAM SESSION - Monday, May 7, 8 a.m., room TBA

The Honor Code

I expect that each student will conduct himself or herself within the guidelines of the University honor system (<http://honor.unc.edu>). All academic work should be done with the high levels of honesty and integrity that this University demands. You are expected to produce your own work in this class. If you have any questions about your responsibility or your instructor's responsibility as a faculty member under the Honor Code, please see the course instructor or Senior Associate Dean Charlie Tuggle, or you may speak with a representative of the Student Attorney Office or the Office of the Dean of Students.

Seeking Help

If you need individual assistance, it's your responsibility to meet with the instructor. If you are serious about wanting to improve your performance in the course, the time to seek help is as soon as you are aware of the problem - whether the problem is difficulty with course material, a disability, or an illness.

Diversity

The University's policy on Prohibiting Harassment and Discrimination is outlined in the 2015-2016 Undergraduate Bulletin <http://www.unc.edu/ugradbulletin/>. UNC is committed to providing an inclusive and welcoming environment for all members of our community and does not discriminate in offering access to its educational programs and activities on the basis of age, gender, race, color, national origin, religion, creed, disability, veteran's status, sexual orientation, gender identity, or gender

expression.

Professional Values and Competencies

Among the many skills students will learn in this course, it's expected they will be able to fulfill the following values and competencies as enumerated by the Association for Education in Journalism and Mass Communication:

- understand concepts and apply theories in the use and presentation of images and information;
- demonstrate an understanding of professional ethical principles and work ethically in pursuit of truth, accuracy, fairness and diversity;
- think critically, creatively and independently;
- conduct research and evaluate information by methods appropriate to the communications professions in which they work;
- write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve;
- critically evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness;
- apply basic numerical and statistical concepts;
- apply tools and technologies appropriate for the communications professions in which they work.

Special Accommodations

If you require special accommodations to attend or participate in this course, please let the instructor know as soon as possible. If you need information about disabilities visit the Accessibility Services website at <https://accessibility.unc.edu/>

--syllabus revised Jan. 5, 2018