

Course Name: Introduction to Science Writing
Institution: University of California, Santa Cruz
Instructor: Rob Irion, Senior Lecturer, Director, Science Communication Program
Course level: Undergraduate
Audience: Juniors and seniors majoring in physical/biological sciences
Semester: Spring 2011
Class schedule: Mondays and Wednesdays, 5:00 p.m. to 6:45 p.m.
Office hours: Wednesdays, 3:00 p.m. to 5:00 p.m.
Typical Enrolment: Limited to 18

Course overview

This course introduces the craft of writing about science research for general audiences. Our seminars will focus on writing explanatory prose, finding the most interesting news angles in published research, interviewing scientists, writing key story elements with creative style, and responding to editing. You will write several short assignments and a few in-class exercises to develop these skills.

For the major course assignment, you will propose at least two ideas for a substantive story (1250-1500 words) about a research project at UCSC or nearby. You'll interview the scientists involved and write three drafts. As part of the revision process, you will peer-edit a subset of your classmates' work. Your final story may appear on the web site of the research team.

This is a seminar-style class with regular contributions expected from everyone. Be prepared to talk about the assigned reading and to discuss your writing. Deadlines are critical for all writers, so I will expect to receive your assignments on time. First drafts are due at 5 pm Wednesdays; I will return my comments to you on the following Monday. Most second drafts are due in class on Monday one week after you receive my comments. Plan ahead to meet all deadlines.

We'll also discuss science writing as a career. Writers work as freelance journalists and at online news sites, magazines, newspapers, university news offices, research labs and federal agencies, museums, and many other venues. If this kind of work interests you, be sure to ask about it as the course goes on.

Required texts and reading

A Field Guide for Science Writers, Second Edition (2005, paperback)
Editors: Deborah Blum, Mary Knudson, Robin Marantz Henig

On Writing Well: The Classic Guide to Writing Nonfiction
30th anniversary edition (2006, paperback) by William K. Zinsser

Knight Science Journalism Tracker: <http://ksjtracker.mit.edu>
(Regular reading online throughout quarter)

Periodic handouts of recent science stories, as well as materials from our guest speakers

Grades

You will receive only one grade for the course. I will not give a letter grade for each assignment. Rather, I will write comments on your papers about aspects that work well and changes you should make to write an effective revision.

Good revisions go beyond the specific marks made by an editor. Editors want writers to rethink the entire piece, to search on their own for areas to strengthen, cuts to make, phrases to add, paragraphs to reorganize or move, and so on. Use my editing as guidance to improve and tighten each piece as thoroughly as you can.

This course is progressive; each assignment builds on the previous one. The later assignments will carry more weight in your final grade than the earlier ones. Your major research story will account for roughly half of your grade.

These criteria will factor into your final grade:

Quality and effort of first drafts: 40%

Effectiveness of revisions: 40%

Participation in class discussions, in-class assignments, and peer editing: 20%

Earning an A in this course requires concerted work and excellent performance in all areas: attendance, participation, attentiveness, meeting deadlines, and the time you spend to research, draft, and revise each assignment. I also will assess the journalistic quality of your written work: grammar, structure, style, accuracy, and your use of interviews and site details.

My narrative evaluations will describe your efforts in each of these areas.

Any documented instance of plagiarism from a published article will result in automatic failure.

Consultations

Please do come to my Wednesday office hours, or make an appointment for another time, if you wish to discuss individual assignments or your overall standing in the course. I'm also happy to chat about career paths and strategies for embarking upon them.

SCHEDULE OF CLASSES AND ASSIGNMENTS

Assignment deadlines

Assignment 1: Explainer (200-250 words)

Draft 1: Wed April 6

Draft 2: Mon April 18

Assignment 2: News story (400-500 words)

Draft 1: Wed April 13

Draft 2: Mon April 25

Assignment 3: Two pitches for research story (100-150 words each)

Draft 1: Mon April 18 *by email*

No revision

Assignment 4: Scientist talk (500-750 words)

Draft 1: Wed April 27

Draft 2: Mon May 16

Assignment 5: Major research story (1250-1500 words)

Draft 1: Wed May 11

Draft 2: Mon May 23

Draft 3: Mon June 6 (in lieu of final exam)

Class schedule

Mon March 28: Introductions
Overview of science writing
Review of major assignments and course schedule

Wed March 30: What is science news? How the media covers science
MIT's Knight Science Journalism Tracker

Discussion due: Bring in a recent science story. Read the first 1-2 paragraphs, then discuss: What makes this science news? Why should readers care?

Reading due: *Field Guide*, foreword, editors' note, chs. 7-8; Zinsser, chs. 1-7

Mon April 4: Explanatory writing: How to describe a science process to a lay reader
In-class exercise: Describe a scientific concept to your family and friends

Discussion due: Bring in a favorite explanatory passage from a science story

Reading due: *Field Guide*, chs. 19-20; Zinsser, chs. 8-10 and ch. 15

Assignment 1, draft 1: Explainer (200-250 words), due April 6

Wed April 6: News writing: Converting a scientific paper and a news release into a story for the general public

In-class exercise: Writing a news lede

Writing due: Assignment 1, draft 1

Reading due: Scientific paper and news release handouts

Assignment 2, draft 1: News story (400-500 words), due April 13

Mon April 11: Discussion of explainer assignment

Editing and revising

Reading due: *Field Guide*, chs. 4-6 and ch. 16; Zinsser, chs. 20-21

Assignment 1, draft 2: Explainer, due April 18

Wed April 13: Finding ideas for your major research story from UCSC's PSci Division, School of Engineering, or Anthropology/Environmental Studies/Psychology
Pitching stories to an editor

Writing due: Assignment 2, draft 1

Reading due: *Field Guide*, chs. 1-2, ch. 10

Assignment 3: Propose ideas for major research story. Submit two pitches (100-150 words each) by email on April 18 by 8 pm. Rob will choose one for you to present in class on April 20.

Mon April 18: Discussion of news story assignment
Editing and revising

Writing due: Assignment 1, draft 2

Writing due: Assignment 3 *by email* at 8 pm

Assignment 2, draft 2: News story, due April 25

Wed April 20: Present your idea for your major research story for class discussion. How will the story take shape? Why is it interesting to readers? Who will you interview, where will you go, and what will you see?
Requesting the time of a faculty member or researcher

Mon April 25: Interviewing: How to ask questions about a scientist's work
Guest: A campus scientist to present a recent study and answer your questions

Writing due: Assignment 2, draft 2

Reading due: Scientist's handouts; *Field Guide*, ch. 17; Zinsser, ch. 12

Assignment 4, draft 1: Scientist talk (500-750 words), due April 27

Wed April 27: Interviewing: Review of what worked and what didn't, how to quote sources
Other elements of successful reporting: Preparation, site visits, observations

Writing due: Assignment 4, draft 1

Reading due: Zinsser, chs. 22-23

Mon May 2: Style: Creative story ledes, narrative story structure

Discussion due: Bring in a favorite science story opening

Reading due: *Field Guide*, chs. 9, 21, and any chs. 23-36 you wish to peruse

Assignment 4, draft 2: Scientist talk, due May 16

Assignment 5, draft 1: Major research story (1250-1500 words), due May 11

- Weds May 4: Review of progress on major research stories; overcoming challenges
Organizing your notes and sitting down to write

Discussion due: Voluntary progress reports
Reading due: *Field Guide*, ch. 22; Zinsser, ch. 25
- Mon May 9: Reporting science news for public audiences
Guest: Julie Rehmeyer, freelance science and math writer; correspondent, *Science News*; 2006 graduate of UCSC Science Communication Program

Reading due: Handouts from Julie Rehmeyer
- Wed May 11: In-class presentation of major research stories (12 students)

Writing due: Assignment 5, draft 1 (all students)
- Mon May 16: In-class presentation of major research stories (6 students)
Revisions, further reporting, fact-checking

Writing due: Assignment 4, draft 2
Assignment 5, draft 2: Major research story, due May 23
- Wed May 18: Revising for brevity, impact, and style
In-class exercises to sharpen and enliven passages
What editors expect from writers
- Mon May 23: Long-form science writing: Magazine features
Guest: Roberta Kwok, freelance science writer; winner, 2010 feature prize from American Geophysical Union; 2008 graduate of UCSC SciCom Program

Reading due: Handouts from Roberta Kwok
Writing due: Assignment 5, draft 2 (Email as well to a subset of classmates)
- Weds May 25: Peer editing of major research story (groups of 3-4 students)

Discussion due: Substantive comments on classmates' drafts
Reading due: Classmates' stories
Assignment 5, draft 3: Major research story, due June 6
- Mon May 31: **No class; Memorial Day holiday**
- Wed Jun 1: Closing class
Careers in science journalism; public communication by scientists

Reading due: *Field Guide*, chs. 11-15, chs. 37-42, epilogue
- Mon Jun 6: NO FINAL EXAM

Writing due: Assignment 5, draft 3, for possible publication in summer/fall
Email assignment to Rob by 10:30 pm (the end of our final exam period)