

H. N. Shirer
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Course syllabus

Topics will be chosen from:

- Introduction
- Scientific writing
- Scientific ethics; plagiarism; authorship
- Writing a scientific research manuscript
- Peer review process
- Editing manuscripts
- Scientific meetings; call for papers
- Oral presentation of scientific research
- Poster presentations at scientific meetings
- Preparing research proposals
- Reviewing manuscripts and proposals
- Practicing the AMS-style presentation
- AMS-style presentations to committee
- Resumes (curriculum vitae or CV)

Bibliography

Required Textbooks:

The Elements of Style, 4th edition 2000, by W. Strunk Jr. and E.B. White
Style for Students : Effective Technical Writing for the Information Age, 2002, by J. Schall

Reserve Books in EMS Library in Deike Building (overnight checkout)

The Craft of Scientific Writing, 3rd Edition 1996, by Michael Alley
A Handbook of Public Speaking for Scientists and Engineers, 1984, by Peter Kenny

Journal Articles:

Garland, J., 1991: Advice to beginning physics speakers. *Physics Today*, July 1991, 42-45. (Available on the web at:
<http://www.cat.gov.in/symposiums/conf/speak.html>)
Gopen, G. D. and J. A. Swan, 1990: The science of science writing. *American Scientist*, 78, 550-558. (Available on the web at:
<http://trc.ucdavis.edu/bajaffee/NEM150/Course%20Content/gopen.htm>)

Course Objectives

The goal of this course is for students to learn to improve their written and oral presentations of scientific information. This is accomplished through exercises assigned in class and through in-class discussion of effective technical presentation.

Assignments and Grading

Grades are based on the assigned work, which will likely include a polished writing sample, an edited published abstract, a 2-4 page AMS conference preprint (extended abstract), an anonymous review of a classmate's draft of the 2-4 page paper, and (graduate students only) a 12-minute oral presentation. This preprint may be a succinct summary of your research work or may be on some other topic approved by the instructor. This preprint and oral presentation also can be from conferences that you are preparing to attend later this year, or they can be from recently attended conferences if you did most of the writing of the published paper and if you thoroughly critique and revise that paper based on what you have learned in this course. Because all written and oral papers can be improved with additional effort, the goal here is for everyone to learn to improve their written and oral presentations.

Undergraduate students (3 credits): 1/3 of your grade comes from my part of the course and the other 2/3 comes from your research supervisor. The 2-4 page AMS-style paper should be a succinct summary of your research work. The oral presentation in my part of the course is recommended (for extra credit) but is not required. **Be sure to contact your supervisor early in the semester and ensure that he or she knows this grading policy for the course.**

Graduate students (1 credit): The entire grade comes from the written and oral assignments I provide. These assignments help you prepare for the writing and defending of your thesis or paper.

PhD students: This course also prepares you for the university-mandated Technical English Competency requirement. For fulfillment in the Department of Meteorology, each student must: write an acceptable 500-word essay in a one-hour period, write an acceptable 2-4 page AMS conference preprint, and give an acceptable 12-minute oral presentation. An acceptable 500-word essay written as part of Meteo 580 will suffice, but an *ad-hoc* panel of three faculty members, none of whom is the adviser of the examined student, evaluates each of the other two requirements. These evaluations are normally done in June or July. ***Passing Meteo 580 does not necessarily mean passing the Technical English Competency Requirement.***

Research Symposium

The simplest manner for scheduling the 12-minute talks by the graduate students in the class is to hold a symposium on one day. Please provide your preference and availability on the survey sheet.

Academic Integrity

Students are expected to do their own writing. Do not copy text from another person's paper or from a World Wide Web site and present the material as your own, as that is plagiarism. Other people's work should be summarized in your own words and properly referenced, when doing so provides necessary background for presenting your work. Students who plagiarize other people's work will receive an F in the course. For additional information about the EMS college policy, which this course adopts, please see: <http://www.ems.psu.edu/students/integrity/index.html>.