

**KINE 8710 - Scientific Communication in Exercise Science (3 cr.)**  
Thursday, 3:00 - 5:30 PM.

**Instructor**

Dr. Mark G. Fischman, Motor Behavior Center, 1459 Haley, 844-1465, email: fischmg@auburn.edu

Office hours: Daily, 9 – 10 AM. Other times by appointment.

**Prerequisite**

Doctoral level standing, masters thesis student, or permission of instructor.

**Textbook**

Day, R. A., & Gastel, B. (2006). *How to write and publish a scientific paper* (6th ed.). Westport, CT: Greenwood Press.

There will also be additional readings that I will make available in the Motor Behavior Center or via Blackboard.

**Course Description**

This seminar provides an overview of the three main formats for scientific communication: a) the research article, b) the verbal presentation at scientific conferences, and c) the poster presentation at scientific conferences. The **major** emphasis of the seminar will be on the refereed journal article. We will also take an in-depth look at the process of peer-review, as well as several ethical issues in scientific communication.

**Requirements and Evaluation**

1. Assigned readings and **active participation** in class - 50%

Students are expected to read all materials thoroughly and be able to actively discuss the readings in class. Students are also expected to bring in relevant materials from their particular research disciplines as examples to supplement the textbook and outside readings. A formal presentation of the materials involved with a research publication (your own or your major professor's) is required. You will also assist undergraduate students in KINE 4780 with their senior paper research proposals (Good practice!)

2. Abstracts of chapters from Day and Gastel (2006) - 30%

For **each** of the assigned textbook chapters (35 total), prepare an abstract of **75 words maximum**, summarizing the content of the chapter. Each abstract should include the chapter number and name, and be typed as one single-spaced paragraph. Leave a double space between the end of one abstract and the beginning of the next. **This assignment is due by April 29.**

## 3. Poster Presentation – 20%

Select a published data-based article from a refereed journal in your field and prepare a “poster” (i.e., a PowerPoint slide) of how the article may have looked as a conference presentation. Your poster must include at least one table and one graph. You do not have to print the poster; you will submit it to me electronically.

Letter grade basis: 90%+ = A, 80%+ = B, 70%+ = C, 60%+ = D, under 60% = F

Course Calendar

Week Number & Dates		Topic and Reading Assignment
1.	January 14	Introduction to course; requirements, evaluation; introduction of class members; Day & Gastel (2006) preface
2.	January 21	Day & Gastel (2006) Chapter 1- 3
3.	January 28	Day & Gastel (2006) Chapter 4- 6
4.	February 4	Day & Gastel (2006) Chapter 7- 9
5.	February 11	Day & Gastel (2006) Chapter 10-12
6.	February 18	Day & Gastel (2006) Chapter 13-15; Outside Readings I
7.	February 25	Day & Gastel (2006) Chapter 16-18
8.	March 4	Day & Gastel (2006) Chapter 19-22
9.	March 11	Day & Gastel (2006) Chapter 23, 25; Outside Readings II
10.	March 18	<b>SPRING BREAK</b>
11.	March 25	Day & Gastel (2006) Chapter 27, 28
12.	April 1	Day & Gastel (2006) Chapter 30-32
13.	April 8	Day & Gastel (2006) Chapter 33, 34
14.	April 15	Day & Gastel (2006) Chapter 35-37
15.	April 22	Day & Gastel (2006) Chapter 40; Student presentations
16.	April 29	Student presentations; Abstracts of textbook due

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Outside Readings I

Morrow, J. R., Jr. (1991). Editor's viewpoint: Shocking. *Research Quarterly for Exercise and Sport*, 62, v.

Stull, G. A., Christina, R. W., & Quinn, S. A. (1991). Accuracy of references in Research Quarterly for Exercise and Sport. *Research Quarterly for Exercise and Sport*, 62, 245-248.

Outside Readings II

Garfield, E. (1986, August 4). Refereeing and peer review. Part 1. Opinion and conjecture on the effectiveness of refereeing. *Current Contents*, 31, 3-11.

Garfield, E. (1986, August 11). Refereeing and peer review. Part 2. The research on refereeing and alternatives to the present system. *Current Contents*, 32, 3-12.

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### Bibliography

#### A. Books on the Scientific Communication Process

- Alley, M. (1996). *The craft of scientific writing* (3<sup>rd</sup> ed.). New York: Springer.
- American Psychological Association (2010). *Publication manual of the American Psychological Association* (6<sup>th</sup> ed.). Washington, DC: Author.
- Booth, V. (1993). *Communicating in science: Writing a scientific paper and speaking at scientific meetings* (2nd ed.). Cambridge, England: Cambridge University Press.
- Day, R. A. (1995). *Scientific English: A guide for scientists and other professionals* (2<sup>nd</sup> ed.). Phoenix, AZ: Oryx Press.
- Pyrzczak, F., & Bruce, R. R. (1992). *Writing empirical research reports: A basic guide for students of the social and behavioral sciences*. Los Angeles: Pyrczak Publishing.
- Sternberg, R. J. (1993). *The psychologist's companion* (3<sup>rd</sup> ed.). Cambridge, England: Cambridge University Press.
- Thyer, B. A. (1994). *Successful publishing in scholarly journals*. Thousand Oaks, CA: Sage Publications, Inc.
- Tierney, E. P. (1996). *How to make effective presentations*. Thousand Oaks, CA: Sage Publications, Inc.

#### B. Additional Articles on Peer Review

- Cicchetti, D. V. (1991). The reliability of peer review for manuscript and grant submissions: A cross-disciplinary investigation. *Behavioral and Brain Sciences*, 14, 119-186.
- Coates, K. (1995, June 23). Point of view: It is time to create an open system of peer review. *The Chronicle of Higher Education*, p. A40.
- Eisenberg, N., Thompson, M. S., Augir, S., & Stanley, E. H. (2002). "Getting in" revisited: An analysis of manuscript characteristics, reviewers' ratings, and acceptance of manuscripts in *Psychological Bulletin*. *Psychological Bulletin*, 128, 997-1004.
- Fiske, D. W., & Fogg, L. (1990). But the reviewers are making different criticisms of my paper! *American Psychologist*, 45, 591-598.
- Greene, M. (1990, July). Peer review. *The Journal of NIH Research*, 2, 18, 20.
- Relman, A. (1990, July). Fit for print? *The Journal of NIH Research*, 2, 19, 20.