Syllabus
Scientific Writing, Editing, and Revising
BIOL 694, Spring 2010

Instructor: Abby Powell, abby.powell@alaska.edu
Meeting Time: Tues/Thurs, 9:45-11:15 AM, 208 Irving I
Office: 209B Irving I, 474-5505

This course is geared toward the graduate student who is ready to start writing a thesis chapter. Students will learn skills needed to write, review, and edit manuscripts in the biological sciences. We will focus on all aspects of writing a paper for a peer-reviewed journal including, but not limited to: organization, clarity, scope, authorship, submittal and review processes, and editing. Each student will participate in writing, editing, and reviewing manuscripts. A completed draft of one thesis chapter is the expected final product.

Attendance Policy: Students are expected to attend and participate in all class sessions.

Access to class materials and information: This course will use Blackboard to make additional information available. Access is restricted to students enrolled in the course. All information associated with the course will be placed there, including lecture notes, slides or images used during class, handouts, links to relevant websites, etc. Provided you have a university email address, you will already be enrolled through Blackboard as a user: go to classes.uaf.edu and follow the instructions.

Suggested References: We will not have a text for this class, but will draw on a number of books and articles, which will be made available through Blackboard. You may also wish to purchase or borrow the books below:


Course goals: The primary goal of the course is to help you produce the best possible scientific manuscript given the quality of your research. A well-written scientific paper showcases the results of the study and allows the reader to focus on the scientific content, while poorly written papers require the reader to spend considerable time trying to figure out what the writer intends to convey. Over the course of the semester each student is expected to produce a manuscript of publication quality.
Most professional biologists, academic or otherwise, spend a considerable amount of time editing other people’s work and revising their own. As part of this course you will learn how to review other students’ manuscripts, how to revise your own manuscript, and how to respond to the critiques of editors and reviewers. You will gain an understanding of the publishing process. Since the majority of scientific articles include multiple authors, learning to work on manuscripts in a group context is critical for successful publication. You will be expected to communicate regularly with your major advisor and (where applicable) with other co-authors of your manuscript.

**Learning Outcomes:** By the end of the course the successful student will:
1. Produce a well-written, well-structured scientific publication suitable for submission to a high quality journal in his/her field.
2. Develop reviews of other people’s manuscripts that provide specific, constructive critique to the writer.
3. Be able to revise their own work to effectively address critiques of reviewers.
4. Understand the role of each participant in the publication process
5. Be able to identify and reduce biases of the publication process.

**Instructional Methods:** During each class period I will present a short lecture on the day’s topic. Each week, students will complete one or two assignments that cover small components of the paper (see Schedule). The results of these first submissions will be discussed in class (by the whole class or in smaller groups). This will be followed by class exercises and discussion aimed at improving the writing assignment that was due that day. You will turn in completed sections at several points during the course, each of which will be reviewed by myself, one other student, and your major advisor (but graded only by me). Five sections will be submitted: Introduction, Methods, Results, Discussion, and a complete second draft. You will be asked to respond to all comments and required to review your paper with any co-authors before submitting the final complete product.

**Assessment:** Grades will consist of two main components: 1) your own work (the sections of the manuscript), and 2) your contribution to other students’ work.

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<thead>
<tr>
<th>Component</th>
<th>Proportion of grade</th>
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<tbody>
<tr>
<td>First drafts of sections (5 sections x 6%)</td>
<td>30%</td>
</tr>
<tr>
<td>Final manuscript/thesis chapter</td>
<td>40%</td>
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<tr>
<td>Peer reviewing/editing</td>
<td>20%</td>
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<tr>
<td>Participation</td>
<td>10%</td>
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Grades will be given based on a percent score (90-100%=A, 80-90%=B, 70-80%=C, 60-70%=D, <60%=F).
Deadlines: All assignments should be submitted electronically to me and one other student (selected beforehand by me) at least 24 hours prior to the start of class. Drafts of sections and the final paper are due electronically by 5 PM on the due date.

This class involves extensive editing and reviewing on a tight schedule. Because of this, penalties for late assignments (whether the initial assignment, draft sections, or final version) will be substantial: assignments will lose 10% of the maximum value for each day they are late, including weekends.

Participation scores are determined by the contribution of the student during class time. This includes attendance, level of preparation prior to class (e.g. ability to discuss the readings), and level of contribution to whole-class and small group discussions and exercises.

Plagiarism: Plagiarism is the overt or covert use of other people’s work or ideas without acknowledgement of the source. This includes using ideas or data from a classmate or colleague without permission and acknowledgement, including sentences from journal articles (either in their entirety or with minor changes) in your writing without citing the author, or copying parts of a website into your essay. You cannot use someone’s ideas without citing the originator; you cannot use someone’s words without quoting the writer. Any deviation from this will be regarded as plagiarism.

When you plagiarize you are stealing the currency which science (and many other endeavors) uses: knowledge. Plagiarism and cheating are serious offenses that violate the student code of conduct may result in an “F” in the course and / or referral to the university disciplinary committee.

A few simple rules to prevent plagiarism:
1. When in doubt about whether you should cite or acknowledge someone, do so.
2. If you are unsure of how to cite someone’s writings or ideas, ask one of the instructors for help. Reference librarians are also a good source of information for help with citations.

Note for students with disabilities: If you have a disability of any kind for which you think you may need an adjustment in the classroom, you must contact the Office of Disability Services (203 WHIT, 474-7043). I will work with the office to provide reasonable accommodation, but I cannot do so without a letter from this office!
Schedule/List of Topics *(subject to change)*

**January**
21 Class procedures and expectations
26 Authorship, How to start writing
28 Selecting a journal, Structure, Outlines

**February**
2 Methods (+ Study Site/System)
4 Results (Figures and Tables)
9-11 AP out of town, *work on writing Methods*
   
   **1st Draft of Methods - due 12 February (5 PM)**

15 Results (Statistics, Common Mistakes)
18 Reviewing and Editing
22 Managing Literature/Background materials
25 Discussion
   
   **1st Draft of Results - due 26 February (5 PM)**

**March**
2-4 AP out of town, *work on reviews and revisions of Methods and Results*
7-14 **SPRING BREAK**
   
   **1st Draft of Discussion - due 14 March (5 PM)**

16 Ethics of reviewing, writing reviews, responding to reviewers
18 Introduction
23 Titles, Abstracts
25 Acknowledgements, Literature Cited
   
   **1st Draft of Introduction - due 26 March (5 PM)**

30 Working with coauthors; responding to reviewers and editors

**April**
1 Constructing an argument
6 Making it flow
8 Linking the Introduction and Discussion
13 Publishing in peer-reviewed journals, *Guest Speaker, Roger Ruess*
15 Communicating science to other audience, *Guest Speaker, Ned Rozell*
   
   **2nd Draft, all the parts - due 16 April (5 PM)**

20 Bias in peer review
22 Book reviews
27 TBA
29 TBA

**May**
4 TBA
6 Class wrap up
   
   **Final, Completed Paper - due 7 May (5 PM)**