Syllabus
Scientific Writing, Editing, and Revising in the Biological Sciences
BIOL/WLF 604, Spring 2017
3 credits

I. Background Information
Instructor: Christa Mulder, office Irving 412, phone 474-7703, email cpmulder@alaska.edu

Lectures and discussions: TR 9:45-11:15 am. Location: Murie 330.

Materials:
We will draw on a range of books for this course, and a set of required readings (chapters and articles) will be available via Blackboard.

Required text:


Recommended reading:

Council of Science Editors, Style Manual Committee. 2006. Scientific style and format: the CSE manual for authors, editors, and publishers. 7th ed. The Council, Reston (VA), USA.


Books used extensively for examples:


Prerequisites: Graduate standing in the Biological Sciences or related field, plus permission of the instructor(s). This course is aimed at students who are ready to start writing a manuscript for publication, or a thesis chapter in the form of a manuscript. This means that data should already be analyzed and initial conclusions drawn. Preference will be given to students who have not previously published in the scientific literature. Class size is limited so these requirements will be strictly enforced.
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, and anything else that we can think of. Provided you have a university email address, you will already be enrolled through Blackboard as a user. Just go to classes.uaf.edu and follow the instructions.

*Note:* We will assume that we can reach you through your UAF email account and that you are regularly checking your email. If you do not use your UAF email address as your primary account, please put a forward on it to whatever account you do use.

II. Goals of the course:

*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 an academic journal in his/her field.
2. Develop reviews of other people’s manuscripts that provide specific, constructive feedback 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 in the publication process.

III. Instructional Methods
During each class period the instructor or a guest lecturer will present a short lecture on that 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. Students will turn in completed major sections at several points during the course, each of which will be reviewed by an instructor, one other student, and the student’s major advisor (but graded only by the instructor). Five sections will be submitted: Methods, Results, Introduction, Discussion, and Titles / Abstracts / Literature Cited. Each submission of a major section will include revisions to all previous major sections. Students will be asked to respond to all comments and will be required to review the paper with their co-authors before submitting the final complete product.

IV. Assessment
Assessment consists of two main components: 1) the student’s own work (the sections of the manuscript), and 2) the students’ contribution to other students’ work.

<table>
<thead>
<tr>
<th>Component</th>
<th>Proportion of grade</th>
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<tbody>
<tr>
<td>First drafts of sections (5 sections)</td>
<td>40%</td>
</tr>
<tr>
<td>Final manuscript / thesis chapter</td>
<td>30%</td>
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<tr>
<td>Peer reviewing / editing</td>
<td>20%</td>
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<tr>
<td>Class participation</td>
<td>10%</td>
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</table>

Grades will be given based on a percent score (90-100%=A, 80-90%=B, 70-80%=C, 60-70%=D, <60%=F). I reserve the right to apply a curve up to 3%.

Deadlines
For assignments due in class students should email a copy of the assignment to the instructor before class, and bring hard copies or computer with documents to class (as assigned). Drafts of major sections and the final paper are due electronically by midnight on the due date; refer to the class schedule and notices from the instructor.

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.

V. 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.

**VI. 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!
VII. Schedule
This schedule is tentative and subject to change as needed. Readings will be listed on Blackboard.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture/Class Time</th>
<th>Assignment</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T 1/17</td>
<td>Class procedures &amp; expectations, authorship, journal selection</td>
<td>Confirming authorship</td>
<td>1/24</td>
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<tr>
<td></td>
<td>R 1/19</td>
<td>How to get started, paper structure</td>
<td>Outline, advisor approval, journal selection, instructions to authors</td>
<td>1/26</td>
</tr>
<tr>
<td>2</td>
<td>T 1/24</td>
<td>Methods (+ study site/system)</td>
<td>Reading for class discussion</td>
<td>class</td>
</tr>
<tr>
<td></td>
<td>R 1/26</td>
<td>Methods (details)</td>
<td>Reading for class discussion, writing samples</td>
<td>class</td>
</tr>
<tr>
<td>3</td>
<td>T 1/31</td>
<td>Reviewing and editing</td>
<td>Writing samples</td>
<td>class</td>
</tr>
<tr>
<td></td>
<td>R 2/2</td>
<td>Results (Figures and Tables, statistics, common mistakes)</td>
<td>Tables and figures</td>
<td>class</td>
</tr>
<tr>
<td>4</td>
<td>T 2/7</td>
<td>Dealing with common problems in results</td>
<td>Reading for class discussion, writing samples</td>
<td>class</td>
</tr>
<tr>
<td></td>
<td>R 2/9</td>
<td>Relationship between Intro and Discussion; Intro structure and content; developing the “hook”</td>
<td>Reading for class discussion</td>
<td>class</td>
</tr>
<tr>
<td>5</td>
<td>T 2/14</td>
<td>Discussions/Linking the Introduction and Discussion</td>
<td>Writing samples</td>
<td>class</td>
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<tr>
<td></td>
<td>R 2/16</td>
<td>Negative Results: the file-drawer problem</td>
<td>Reading for class discussion</td>
<td>class</td>
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<tr>
<td>6</td>
<td>T 2/21</td>
<td>Managing Literature/Background materials</td>
<td>Writing samples (bring to class)</td>
<td>class</td>
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<tr>
<td></td>
<td>R 2/23</td>
<td>Constructing an argument, making it flow</td>
<td>Reading assignment, Writing Samples</td>
<td>class</td>
</tr>
<tr>
<td>7</td>
<td>T 2/28</td>
<td>Titles, Abstracts, Acknowledgements, Lit. Cited</td>
<td>Writing samples</td>
<td>class</td>
</tr>
<tr>
<td></td>
<td>R 3/2</td>
<td>Conclusions: returning to the hook</td>
<td>Writing samples</td>
<td>class</td>
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First Draft of Methods 1/31

Review of Results 2/23

1st Draft Introduction + revisions to previous 3/2
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture/Class Time</th>
<th>Assignment</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>T 3/7</td>
<td>Publishing in peer-reviewed journals: the process</td>
<td></td>
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<tr>
<td></td>
<td>R 3/9</td>
<td>Biases: author and reviewer identities (discussion)</td>
<td>Reading for class discussion</td>
<td>class</td>
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<td></td>
<td></td>
<td><strong>Review of Intro + revisions to previous</strong></td>
<td></td>
<td>3/9</td>
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<tr>
<td>9</td>
<td>3/13-17</td>
<td>SPRING BREAK</td>
<td></td>
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<tr>
<td>10</td>
<td>T 3/21</td>
<td>Alternatives to traditional publishing process</td>
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<td></td>
<td>R 3/23</td>
<td>Scientific fraud, ethics</td>
<td></td>
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<td></td>
<td></td>
<td><strong>1st Draft Discussion + revisions to previous</strong></td>
<td></td>
<td>3/23</td>
</tr>
<tr>
<td>11</td>
<td>T 3/28</td>
<td>Reading for class discussion for class</td>
<td></td>
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<tr>
<td></td>
<td>R 3/30</td>
<td>Working with coauthors; responding to reviewers and editors</td>
<td>Writing Samples (bring to class) for class</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td><strong>Review of Discussion + revisions to previous</strong></td>
<td></td>
<td>3/30</td>
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<td>12</td>
<td>T 4/4</td>
<td>Publishing in peer-reviewed journals: editors’ perspectives (Panel Discussion)</td>
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<tr>
<td></td>
<td>R 4/6</td>
<td>Bias in peer review</td>
<td>Reading for class discussion</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td><strong>1st Complete Draft</strong></td>
<td></td>
<td>4/6</td>
</tr>
<tr>
<td>13</td>
<td>T 4/11</td>
<td>Ethics of reviewing, writing reviews, response to reviewers</td>
<td>Reading for class discussion for class</td>
<td></td>
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<tr>
<td></td>
<td>R 4/13</td>
<td>Editing the major sections</td>
<td>Writing samples</td>
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<tr>
<td>14</td>
<td>T 4/18</td>
<td>TBA</td>
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<td></td>
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<td><strong>Review of 1st Complete Draft</strong></td>
<td></td>
<td>4/18</td>
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<tr>
<td>15</td>
<td>T 4/25</td>
<td>TBA (Christa at workshop)</td>
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<td></td>
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<tr>
<td></td>
<td>R 4/27</td>
<td>TBA (Christa at workshop)</td>
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