

ENTOMOLOGY 7930
Scientific Writing & Grant Proposal Development

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Course Description:

This course is for graduate students, particularly upper level students, who wish to develop and improve their written skills for communicating with technical and non-technical audiences. Students will learn skills such as to how to construct a *curriculum vita*, critique their own work and that of others, configure and submit a scientific paper, and configure their own research proposal into a grant proposal suitable for submission to an internal or external graduate research competition appropriate to their disciplinary area.

Credit Hours: 2

Lectures: 2/week (~1 hour/lecture), Thursday 2:20-4:10pm
The course will be video-linked between room 245 Kottman Hall (Columbus) and 206 Thorne Hall (Wooster).

Prerequisites: None

Attendance Policy:

Attendance is essential in this course. More than one unexcused absence will result in loss of a full letter from the final grade (e.g., A becomes B, B becomes C, etc.). Excused absences are at the discretion of the instructors, and you must notify the instructors via email in advance of the class in order to be eligible to obtain an excused absence.

Class participation: Your class participation is worth 20% of your final grade and is based on providing peer evaluation in class and participating in class discussions and activities. Your energy, insights, and questions are important for the course.

Please, do not text or otherwise use your cell phone when class is in session. If you are dealing with an emergency situation that requires use of your cell phone, please notify the instructors prior to class so that you can be excused to take the call in the hallway. Otherwise, cell phone use and texting during class will result in a loss of class participation points.

Course grading:

Class attendance and discussion / participation:	20%
Technical writing assignments:	40%
Grant proposal (OARDC-SEEDS competition):	40%

Course Grading Scale: Standard percent scale, no curve. (e.g., 91-100% = A; 89 & 90 = A-; 87-88 = B+; 81-86 = B; 79-80 = B-; 77-78 = C+; 71-76 = C; 69-70 = C-; etc.)

Important Note:

Do not use previously submitted proposals or abstracts for this course.

Supporting Each Other:

For people to have the opportunity to improve their writing skills, the atmosphere needs to be supportive inside and outside of class. Therefore, facilitators and students need to focus on being constructive and encouraging, even while pointing out things that need to be fixed. Sarcastic or belittling comments of any sort will not be tolerated. The goal is to create a “safe” atmosphere where everyone feels comfortable and respected.

Learning Objectives:

Students will demonstrate the ability to

- Use technical writing skills so as to effectively communicate with technical and non-technical audiences.
- Write persuasively at the heading, sentence, and paragraph levels.
- Recognize a variety of scientific journals and their requirements and presentation format.
- Critique their own writing and that of others.
- Produce a well-written, professional quality abstract, submission letter, and rebuttal letter.
- Produce a well-written, professional quality grant proposal.

Course Components:

- *Curriculum vitae* preparation.
- Assessing your audience.
- Basic writing skills.
- The requirements and presentation format for various scientific journals.
- Preparing a scientific article for submission to a peer review journal.
- Cover letters, follow-up correspondence for scientific journal submission.
- Writing an extension fact sheet.
- Basics of writing and submitting a grant proposal.
- Understanding the requirements of each grant proposal component: Project Description, Background and Review of Literature, Rationale and Significance, Preliminary Data, Approach and Methods, Qualitative and Quantitative methods, Schedule of Activities, Budget and Budget Justification.

Final Exam:

Monday, Dec. 9, 2013, 10-11:45am, room 245 Kottman Hall (Columbus) and 206 Thorne Hall (Wooster).

General Policies:***Late Policy:***

A report that is handed in late (after midnight of due date) will be reduced in value 10 percent per day that it is late.

Incomplete Grade Policy:

Incomplete grades will be given only in special circumstances as outlined in university policy. See <http://trustees.osu.edu/rules8/ru8-21.php>

Academic Integrity:

Students are expected to work independently, including on take home assignments (but may share resources such as books), and will be held accountable for normally defined situations of academic misconduct (plagiarism, cheating, and other forms of misconduct as defined by the university). Such misconduct will not be tolerated in this course. According to Faculty Rule 3335-31-02, Academic Misconduct is defined as any activity which tends to compromise the academic integrity of the institution or subvert the educational process.

Please note that the university policy will serve as the basis for dealing with any such issues in this course. See http://studentaffairs.osu.edu/pdfs/csc_12-31-07.pdf. Please see the Student Resource Guide or the instructor if you have questions about this policy.

Special Needs and Accommodations:

Any student who feels s/he may need an accommodation based on the impact of a disability should contact the instructor privately to discuss your specific needs. Please contact the Office for Disability Services at 614-292-3307 (Fax: 614-292-4190; TDD: 614-292-0901) in room 150 Pomerene Hall, 1760 Neil Ave, Columbus, Ohio 43210 to coordinate reasonable accommodations for students with documented disabilities. See <http://www.ods.ohio-state.edu/>

General Information:

Additional information on general Ohio State University policies can be found at: <http://trustees.osu.edu/ChapIndex/index.php>

Course Schedule
Autumn Semester 2013
Instructors: Dr. Susan Jones and Dr. Andy Michel

Scientific Writing Section of the Course:

1. Aug 22

- Intro to course
- Group discussion: Student introductions. What level of writing experience do you have? Discuss your learning experiences with previous scientific writing.
- Curriculum vita preparation
- Workshop and group discussion: Students to discuss elements included in their CVs.
- Assignment (due by midnight Wed, Aug 28):
Provide an updated CV
- Assignment (due by start of class Thurs, Aug 29):
Read: Gopen and Swan. 1990. The Science of Scientific Writing.

2. Aug 29- Andy out second half of class

- Grammar review
- Sentence and paragraph structure
- Active voice vs. passive
- Simplicity, etc.
- Workshop and group discussion: Miscellaneous writing exercises/critiques. Discuss 'The Science of Scientific Writing'.
- Assignment (due by start of class Thurs, Sep 5):
Read: Howard and Schaefer. 1994. The raison d'être of a scientific article.
Read: Mack. 1992. Common problems of writing style in entomological publications.
Read: Sand-Jensen. 2007. How to write consistently boring scientific literature.

3. Sep 5- Andy out

- Getting started writing, a guide to scientific writing
- Importance of an outline
- Organization, logical flows of the paper
- Guidelines for figures and tables; legends
- Workshop/Assignment: Prepare an outline of a scientific paper pertaining to your research topic (due Sep 12)

4. Sep 12- Susan out

- Discuss the various journals and things to look at when deciding upon a particular journal, open access, impact factor, table of contents, whether listed on PubMed, cost of publication, Editorial Board, time to publication, rejection rate, etc.
- What goes in the abstract, what are the important aspects of an abstract
- Assignment (due Sep 19):
 - Select a peer review journal as an outlet for your research
 - Provide 1-3 paragraphs as to why you selected this journal.
 - Provide a copy of the journal guidelines for abstract preparation.

-Prepare an abstract following the journal guidelines. Your research topic should be the focus of your abstract; you can provide preliminary or anticipated data if you have not yet conducted your research.

5. Sep 19

- Writing a submission cover letter
- The reference section of your manuscript
- Assuring conformity of text and references cited
- Workshop/Assignment: Formatting references.
- Assignment (due Sep 26):
Write the 'References Cited' section for your research paper and format for the journal that you selected on Sep 12. Include a minimum of 15 articles, including at least one edited book and one article in a proceedings. Provide a copy of the journal guidelines for reference preparation.

6. Sep 26

- How to respond to peer reviews: a manuscript from Andy
- We will provide some examples
- Assignment (due Oct 3): Prepare a rebuttal letter for reviewers' comments.

7. Oct 3- Susan out

- Lori Kaser (guest lecture), Grant opportunities and where to find them
- Workshop/Assignment: select a grant opportunity and write 250 words on what you would do (due October 17)

8. Oct 10

- Writing for the general populace
- Extension fact sheets and bulletins
- Workshop/Assignment: Select a current OSU insect fact sheet, and re-write an existing section or add new information/paragraphs to an existing section (due Oct 17)

Grant Writing Section of the Course:

9. Oct 17: Intro to Grant Writing

- Tips and guidelines (adapted from USDA short course)
- How to write for different funding agencies
- Workshop: Improve your 250 word abstract from October 3rd

10. Oct 24: **RFP comes out—what do you want to do?**

- Reading the RFP, Team Building, Grant schedule, Letter of Intent,
- Workshop/Assignment: write a letter of intent (due Oct. 31)

11. Oct 31: 1st page Introduction, Rationale, preliminary data

- What to include on the first page, background
- Know your audience
- Workshop/Assignment: write first page (due Nov 7)

12. Nov 7: Methods and Budget and Budget Justification
-Writing methods, how much detail?
-Workshop/Assignment: Budget and Justification

13. Nov 14-Grant
-Putting it all together
-Discussion of Methods
- Grants are due at 5pm on Thurs, Nov 21

14. Nov 21-Guest lecture from ENT faculty and ex-panel members; Grant Submission
-Do you have all of the forms? Time table?
-Workshop/Assignment: Final prep for grant submission due today

Nov 29

Assignment: Each student will receive two proposals to critique and write a review, which will be presented in the mock panel on Dec 9 (hard copy to be submitted by 9am on Dec 9).

Dec 9

10-11:45am: Final Exam (dates to be confirmed)

We will have a mock panel discussion of all students' grant proposals. As a panel member, each student will present their critique and review of the two proposals that were assigned on Nov 29th. The critique and review write-up are to be submitted by 9am.

Resources

The Elements of Style by William Strunk Jr.

OSU Center for the Study and Teaching of Writing: <http://cstw.osu.edu/writingcenter>

485 Mendenhall Laboratory

125 South Oval Mall

Columbus, OH 43210-1308

Tel: (614) 688-5865

Fax: (614) 292-9244

E-mail: cstw@osu.edu

The Purdue Online Writing Laboratory. <http://owl.english.purdue.edu/>