

Biological Literature and Communication (WAC)
BIOL 4700 Section 2
Spring 2011

Meets: T Th 2:00-3:15 PM
WO 3246

Instructor: John Plenefisch
WO 3256
419 530-1547
john.plenefisch@utoledo.edu

Office Hours: M W 1:30 - 3:30 PM, or by appointment

What this course is about: Science is not simply a collection of facts but rather a systematic method of exploring the nature of the world around us. Scientific claims are based on experimental and observational evidence, published in peer-reviewed articles where the data that supports the claims are shown. These articles are known as the primary literature. There is also a large secondary literature, that includes articles that provide an overview of the primary literature, and evaluate the conclusions in the primary literature. Eventually discoveries may make their way into textbooks or the popular press. Scientists also communicate their findings at meetings and give seminars on their research work to other specialists in their field. Finally biologists write many additional types of documents in their professional lives.

In this course, we will study how to effectively communicate biological knowledge both through writing and oral presentation. We will read and discuss several articles from the primary biological literature. We will also briefly look at some of the other types of writing that professional biologists carry out during their careers. Since this is a WAC ("Writing Across the Curriculum") course, a major component will be short written exercises, both in class and as outside work. You will also write a concise review article based on the primary literature ("term paper") and you will present a short oral presentation on the same specific topic.

Class attendance and participation: We will read a number of primary literature papers on specific topic(s) and discuss them in class. Attending class and participating in the discussion are essential, since your contributions to the class discussion are a major way of showing that you have read and understand the papers. A couple of the short writing assignments will be in class; you will need to be present in order to complete those assignments. If you are unable to attend a specific class meeting, please provide a written excuse, in advance if at all possible.

Term paper: The term paper is a 7-12 page review article (excluding references) on some biologically relevant topic of interest that you have selected after consulting with the instructor. You should not select a topic that you have already written up as a paper for another class! The paper (and all drafts) must be typewritten, double-spaced, using 10-12 point font with 1 inch or smaller margins. References must be in a standard format. Topics are due February 3. An outline draft will be due February 24, a written draft due March 24, and the final version due no later than April 28. A grading rubric for this assignment will be provided to help you organize and write this paper.

Final Presentation: In addition to the paper you will give a short (10 minute) oral presentation near the end of the term on your topic. Your presentation should be in PowerPoint. At the end of the presentation about 5 minutes will be set aside for questions from the class about your topic. We discuss the presentations more fully in class, and a grading rubric will be provided to help you organize and prepare for the presentation.

Seminar Attendance: One way in which biologists communicate with each other is through formal oral presentations of their research work. These talks can be as part of a seminar series, a conference, or a symposium. As part of this course you attend one formal oral presentation and write up a short report on the talk that you attended. *It is strongly suggested that you plan to attend more than one talk, since some seminars may be difficult to follow for any of a number of reasons.* You will be provided with a template to help you organize your report.

Topics: The following topics (not necessarily in the order listed) will be discussed during the semester:

- Plagiarism and other academic dishonesty
- Resumes and C.V.s
- Grants and grant writing
- Scientific databases
- Literature searches
- Peer-review
- Science journalism

Grades: Your grade will be based on:

- 20% In Class Participation
- 25% Term paper (including drafts)
- 25% Final Presentation
- 15% Seminar Report.
- 15% Other written assignments

Your final grade will be assigned based on the percentage of the total points you earned: 90% or better is an A, 80% to 89% a B, 70 to 80% a C, 60% - 70% a D. In the case of borderline scores (3 % points above/below the cutoff) I will give + or - grades.

Withdrawals and incompletes: The last day to withdraw from this course is March 25. A grade of IN will be given only under exceptional circumstances in which you can provide a documented emergency reason for being unable to complete the course during this semester.

Cell Phones and laptops: Cell phones are not to be used in class for either calls or texts. They should be off and placed out of sight and access. Please let me know if you are expecting an emergency call. Laptops may be used for note taking or other class related uses, inappropriate use will be considered evidence of non-participation in the class.

Academic Honesty.

The Department of Biological Sciences and the University of Toledo have specific policies regarding academic dishonesty. Please read the attached Biological Sciences Department's Statement of Academic Dishonesty. The University of Toledo's policies on Academic Honesty can be found in the University Catalog under general policies.

STATEMENT ON ACADEMIC DISHONESTY

Department of Biological Sciences

Academic dishonesty by students enrolled in undergraduate or graduate courses and programs offered by the Department of Biological Science will not be tolerated. Academic dishonesty includes, but is not limited to:

1. Obtaining assistance from another individual during an examination.
2. Giving assistance to another individual during an examination.
3. The unauthorized use of study material or textbooks during an examination.
4. Changing answers on an examination after it has been returned and then submitting it for regrading.
5. Plagiarizing written assignments. Plagiarizing includes: (a) copying laboratory reports from previous years, (b) copying or paraphrasing reports, term papers, or theses prepared by other students, (c) unauthorized collaboration in the preparation of reports, term papers, or theses, and (d) use of another author's materials without appropriate acknowledgment through quotation and citation.
6. Attempting to bribe or otherwise induce an instructor to alter either a grade or examination score.
7. Obtaining or attempting to obtain a copy of an examination prior to its administration.

In accordance with policy outlined in the Student Handbook and the University Catalog, instructors have the responsibility and right to bring cases of alleged dishonesty to departmental, college, and university administrative units. Students involved in academic dishonesty may expect to receive a grade of F on specific assignments as well as in the course where the assignment was made. In addition, disciplinary action may be recommended through appropriate college and university disciplinary committees.

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