

**Biological Literature and Communication (WAC)**  
**BIOL 4700-001**  
**Fall 2013**

Meets: T, Th 9:30 am -10:45 am  
WO 1240

Instructor: Deborah J. Vestal, Ph.D.  
BHS 391  
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Office Hours: T, Th 9:00 am – 9:30 am, or by appointment  
Dr. Vestal will also answer questions submitted by email.

**Course Description:** The work of a scientist is far from limited to his/her actual experiments. Scientists must communicate their findings. The major method of communication of experimental studies is by publication of data/findings in peer-reviewed articles that we refer to as primary literature. Scientists also communicate their findings at meetings and by giving seminars on their work. They must also communicate their findings and present their future goals in grant applications, where they compete for funding to continue their studies. While additional types of documents may be written by scientists, it is clear that success as a scientist is in large part dependent on being able to clearly communicate.

In this course, the focus will be on the approaches that scientists use to communicate. For that reason we will read primary literature, discuss the contents and conclusions of these papers, formulating our own opinions about and interpretation of these results. One goal of this part of the course is to empower the student to be able to “interpret” popular views of scientific advancements. We will also learn to communicate scientific ideas both in written and oral formats.

**Course Format:** This class will be interaction. Much of our time will be spend discussing important manuscripts from the primary literature. Students will be required to do additional literature and background searches to understand the background, methods, etc. for these papers. They will also be assignment portions of each manuscript to present to the class. Discussions will be lead by Dr. Vestal but everyone will be expected to participate during each class. There will also be writing assignments, both in class and take home. Each student will also write a term paper and give an oral presentation/seminar on a topic of current scientific interest.

**Student Evaluation:** Grades will be based on student’s performance on writing assignments, class participation and oral presentation(s). To participate in class, the student must attend. The approximate breakdown of the points for the class (500 total points) follows:

Writing assignments (take home and in class writing assignments. This section also includes grades for figure presentations during paper discussions.)	35% of grade (175 points)
Class participation (discussion and attendance)	25% of grade (125 points)

Term Paper	20% of grade (100 points)
Oral Presentation	20% of grade (100 points)

**Class participation and Attendance:** To do well in the class, students must demonstrate their comprehension of the material being read and discussed. To do this, students must attend and participate in every class. Excused absences must be rare. Any absences must be excused. Students must not only attend class but they must also participate. This is how a student demonstrates that they have read and understand the material assigned and have done the extra background work to assure comprehension. Everyone will talk in class each period. Dr. Vestal will be keeping track of attendance and participation.

Writing assignments have due dates. Assignments that are late will be assigned a penalty of 5% per day late. Written assignments can not be emailed to the instructor. Powerpoint presentations (see oral presentation below) must be provided as electronic files on CD or flash drive prior to the presentation.

**Term Paper:** The final term paper will be 8 – 10 pages double-spaced (not including the references). Dr. Vestal must approve the topic. By the third week of class (September 5<sup>th</sup>), the topic must be approved. The term paper will be based on the primary literature. Several steps in the process will also be graded: outline (due 10/8), rough draft (due 11/12), and final paper (due 12/5). 5% of the grade for each assignment will be deducted for each day late.

**Oral presentation:** During the last 3 weeks of class (before finals) students will present their term papers orally. The Power Point presentations will be 15 minutes each. This allows 10-12 minutes for the actual presentation and a few minutes for questions. The presentation will include an introduction to the relevance of the topic, methods used to gather the data, summary of the findings, comments on the conclusions drawn and future direction for the topic. Students will be graded on their knowledge of the topic, organization, ability to handle questions, etc. I will be grading the students on their oral presentation. Students will also be evaluated by their peers. Both evaluations will impact the overall score of the presentation. The days that there are presentations, the class may run a little late. Let me know if you have a class immediately after this one.

**Grading scale (Tentative):**

A = 93-100%	B-= 80-82%	D+= 67-69%
A-= 90-92%	C+= 77-79%	D = 63-66%
B+= 87-89%	C = 73-76%	D-= 60-62%
B = 83-86%	C-= 70-72%	F = 0-59%

Issues that will be discussed in class (but not necessarily in this order):

- Understanding the scientific process
- Funding of scientific research
- Finding scientific papers
- Writing an abstract
- Writing a scientific paper

Reading primary literature  
Preparing oral presentations  
Plagiarism and scientific misconduct  
Use of audio/visual equipment (PowerPoint):

### **Academic Dishonesty**

Please read the attached statement on academic dishonesty. Because this class will involve individual writing assignments and research, you must avoid plagiarism, either intentional or otherwise. If a student hands in an assignment that does not reflect his/her own work they will receive a failing grade for this course. It is important to understand plagiarism and how to avoid it.

## **STATEMENT OF ACADEMIC DISHONESTY**

### **Department of Biological Sciences**

Academic dishonesty by students enrolled in undergraduate and graduate courses and programs offered by the Department of Biological Sciences 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 but is not limited to: a) Copying laboratory reports from previous years, b) copying or paraphrasing reports, term papers, or these 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 acknowledgement 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 policies presented in The Student Handbook and The University Catalog, Instructors have the responsibility and right to report 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. Please consult your instructor for instructions on the implementation of this policy.