Biological Literature and Communication (WAC)

The University of Toledo
Natural Sciences and Mathematics
BIOL 4700-001
3 Credit Hours

Instructor:	Deborah Vestal, Ph.D.	**Term:**	Fall 2015
Office Hours:	T, Th 9:00-9:30 am; by appt.	**Class Location/Times:**	WO 1240/ T, Th 9:30 – 10:45 am
Office Location:	BHS 391/BO 1098	**Lab Location/Times:**	NA
Office Phone:	419-383-4134	**Course Website:**	https://blackboard.utdl.edu
Email:	Deborah.Vestal@utoledo.edu	**Instructor's Website:**	NA

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.

While this first paragraph may appear to focus on "basic scientists", the same things are try for other scientific professions. Certainly clinicians also need to present their work in peer reviewed literature and public forums.

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 "interprete" popular views of scientific advancements. We will also learn to communicate scientific ideas both in written and oral formats. As you will learn, both written and oral communication of science follows guidelines that differ significantly from those of English literature.

COURSE OVERVIEW

Course information can be accessed through the University of Toledo's Blackboard 9.1 site (www.utoledo.edu/dl). You must be registered for the course and have a UTAD ID and password to log into the site. All course materials will be found within this site. Through this site you will also be able to communicate with me and other students in the class. BIOL 4700 is an interactive course. 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.

Schedule of Topics (Tentative): Found in separate document.

COURSE OBJECTIVES

BIOL 4700 is a 3 credit hour undergraduate level course. Upon completion of this course, the student will be able to:

    1) Analyze and describe primary scientific literature.
    2) Learn how to do the research required to be able to interpret scientific literature.

3) Apply the information learned from the scientific literature to other scenarios.
4) Present scientific data in a clear and concise manner.
5) Demonstrate principals of scientific writing and oral presentation.

PREREQUISITES
Must have received at least a C in BIOL 3030 Cell Biology.

TECHNICAL SKILLS FOR THE WEB PORTION OF THIS CLASS

To succeed in this course, it will be important for learners to possess the following technical skills:

1. Rename, delete, organize, and save files.
2. Create, edit, and format word processing and presentation documents.
3. Copy, paste, and use a URL or web address.
4. Download and install programs and plug-ins.
5. Send and receive email with attachments.
6. Locate and access information using a web search engine.
7. Use chat or IM software for real-time communication.
8. Use a learning management system.

TECHNOLOGY REQUIREMENTS

Browser Check Page
Students need to have access to a properly functioning computer throughout the semester. The Browser Check Page will enable you to perform a systems check on your browser, and to ensure that your browser settings are compatible with Blackboard, the course management system that hosts this course:
http://www.utdl.edu/utlv/Bb9BrowserCheck/innovation/blackboard/browsercheck.html

Software
Student computers need to be capable of running the latest versions of plug-ins, recent software and have the necessary tools to be kept free of viruses and spyware. The computer needs to run the following software, available in the Online Learning Download Center at http://www.utoledo.edu/dl/main/downloads.html:

- Word Processing Software
- Adobe Acrobat Reader
- Apple QuickTime Player
- Java Plugin Console
- Adobe Flash Player
- Adobe Shockwave Player
- Mozilla Firefox Browser - **Recommended**

Internet Service
High-speed Internet access is recommended as dial-up may be slow and limited in downloading information and completing online tests. This course does contain streaming audio and video content.

Use of Public Computers
If using a public library or other public access computer, please check to ensure that you will have access for the length of time required to complete tasks and tests. A list and schedule for on-campus computer labs is available at http://www.utoledo.edu/it/CS/Lab_hours.html.

Traditionally, on-campus labs have offered students the use of computer hardware and software they might not otherwise have access to. With UT's Virtual Lab, students can now access virtual machines loaded with all of the software they need to be successful using nothing more than a broadband Internet connection and a web browser. The virtual lab is open 24/7 and 365 days a year at http://www.utoledo.edu/it/VLab/Index.html.

COURSE POLICIES

Academic dishonesty will not be tolerated. Please read The University's Policy Statement on Academic Dishonesty available at http://www.utoledo.edu/dl/students/dishonesty.html.

GRADING POLICIES

Grades will be based on student's performance on writing assignments, class participation (including discussion board) 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 11th), 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 10/7), rough draft (due 11/18), and final paper (due 12/11). 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):

AMERICANS WITH DISABILITIES ACT

The Americans with Disabilities Act (ADA) requires that reasonable accommodations be provided for students with physical, sensory, cognitive, systemic, learning, and psychiatric disabilities. In accordance with the ADA and university policy, if you have a documented disability and require accommodations to obtain equal access in this course; please contact the instructor at the beginning of the semester to discuss any necessary accommodations. Please contact the Office of Academic Access for verification of eligibility at 419-530-4981 (voice) or 419-530-2612 (TDD).

COMMUNICATION GUIDELINES

Email:
Students are expected to check their UT email account frequently for important course information. This class is being taught for you, so if you are having trouble understanding any aspect of it, please let me know. I am here to help, and will do my best to respond to email within 24 to 48 hours.

Discussion:
In this course, participation is vital to your success, and your active engagement during weekly discussion is crucial to learning (and your grade).

Real-Time Communication:
A link to a real-time communication or chat tool has been added to the Course Menu. We will not be using this tool as part of our course assignments; however, the tool is available for you to use if and when you need it. To that end, I would be happy to arrange a time to meet with you in a chat room if you feel that you have questions that would best be answered in real-time. Conversely, you could also use the tool to meet with fellow students online in order to enhance your understanding of course concepts.

Netiquette:
It is important to be courteous and civil when communicating with others. Students taking online courses are subject to the communication regulations outlined in the Student Handbook. To ensure your success when communicating online, take time to familiarize yourself with the "dos" and "don'ts" of Internet etiquette: http://www.albion.com/netiquette

TECHNICAL SUPPORT

If you encounter technical difficulties with Blackboard, please contact the UT Online Help Desk at (419) 530-8835 or utdl@utoledo.edu. The Help Desk offers extended hours in the evenings and on weekends to assist students with technical problems. When calling after hours, leave a detailed message, including your Rocket Number and

phone number, and an Online Learning staff member will respond on the next business day. The UT Online Help Desk website is available at: http://www.utoledo.edu/dl/helpdesk/index.html

Technical questions related to on-campus Internet access, virtual labs, hardware, software, personal website hosting, and UTAD account management can be directed to UT's IT Help Desk at (419) 530-2400 or ithelpdesk@utoledo.edu. The IT Help Desk website is available at http://www.utoledo.edu/it/CS/HelpDesk.html.

LEARNER SUPPORT

The University of Toledo offers a wide range of academic and student support services that can help you succeed:

eTutoring Services
The Ohio eTutoring Collaborative, in partnership with The University of Toledo, now provides online tutoring support for all UT students. eTutoring Services are offered in a wide array of subjects, including Writing, Math, Calculus, Statistics, Accounting, Biology, Chemistry, and Anatomy and Physiology.
Learn more at: https://www.etutoring.org/login.cfm?institutionid=232&returnPage

eLibrary Services Portal
The eLibrary is a customized gateway to UT Libraries for online students. It was designed to help you locate the best online library resources without leaving Blackboard.
Learn more at: http://www.utoledo.edu/dl/students/elibrary.html

Office of Academic Access
The Office of Academic Access provides accommodations and support services to students with disabilities.
Learn more at: http://www.utoledo.edu/utlc/academicaccess/index.html

Counseling Center
The Counseling Center is the university's primary facility for personal counseling, psychotherapy, and psychological outreach and consultation services. The Counseling Center staff provide counseling (individual and group), mental health and wellness programming, and crisis intervention services to help students cope with the demands of college and to facilitate the development of life adjustment strategies.
Learn more at: http://www.utoledo.edu/studentaffairs/counseling/

Services for Online Students
Knowing what to do, when to do it, and who to contact can often be overwhelming for students on campus - even more so for distance learners. Visit the link below to learn more about the wide range of services for online students.
Learn more at: http://www.utoledo.edu/dl/students/student_serv.html