



Biological Literature and Communication

The University of Toledo

Instructor: Qian Chen, Ph.D.	
Class Day/Time: Tuesday and Thursday 2:00-3:15 PM	Class location: Wolfe Hall 1240
Office Hours: Monday and Wednesday 1:00-2:00 PM	Office: Wolfe Hall 4267
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Term: Spring 2017	Credit hours: 3

Department of Biological Sciences, College of Natural Sciences and Mathematics
BIOL 4700_002, CRN: 14726

CATALOG/COURSE DESCRIPTION

A writing intensive course that focuses on reading original literature in biology in a variety of formats. Required of all biology majors.

COURSE STATEMENT

This course aims to:

- 1. Introduce primary scientific literature, the way that scientists communicate their findings with each other*
- 2. Teach you how to read primary scientific literature*
- 3. Teach you how to present scientific findings*

STUDENT LEARNING OUTCOMES

Upon completion of this course, students will be able to:

- 1. Understand what primary scientific literature is*
- 2. Identify three key components of a scientific paper: the hypothesis, the evidences and the conclusion*
- 3. Understand how to design a scientific study*
- 4. Summarize a scientific paper with concise language*
- 5. Communicate the key findings of a scientific paper to a general audience*

PHILOSOPHY OF TEACHING (TEACHING METHODOLOGY)

This class focus on in-class discussion, presentation and writing. There will be intensive reading and writing. Class participation is required. The learning strategies used will include in class discussion, presentation and group activities. You are expected to finish the required reading and writing assignments before class, and be prepared to answer question about the reading materials in class. Most importantly, your participation of the discussion in the classroom is required, which includes either presenting a scientific paper or asking questions.

PREREQUISITES AND COREQUISITES

BIOL 3030 minimum Grade of C



REQUIRED INSTRUCTIONAL MATERIALS (TEXTS AND ANCILLARY MATERIALS)

This course does not require a textbook. But you are expected to download the required reading materials from the Blackboard website. The instructor will provide handouts in classes as well.

TECHNOLOGY EXPECTATIONS

A laptop is required for the class. Adobe Acrobat Reader, Microsoft Word and Microsoft PowerPoint are recommended for this course.

UNIVERSITY POLICIES

Policy Statement on Non-Discrimination on the basis of Disability (ADA)

The University is an equal opportunity educational institution. Please read [The University's Policy Statement on Nondiscrimination on the Basis of Disability Americans with Disability Act Compliance](#)

Academic Accommodations

The University of Toledo is committed to providing equal access to education for all students. If you have a documented disability or you believe you have a disability and would like information regarding academic accommodations/adjustments in this course, please contact the [Student Disability Services Office](#).)

OVERVIEW OF COURSE GRADE ASSIGNMENT

Grades will be determined as follows.

Writing assignments	35%
Class participation and attendance	10%
Quiz	10%
Oral presentation	15%
Midterm	10%
Final	20%

*Note: 2 extra points will be given to those who take the standardized Field Test as a part of departmental assessment of the seniors.

Grading scale:

Grade	A	A-	B+	B	B-	C+
Scale	94-100%	90-93%	87-89%	83-86%	80-82%	77-79%
Grade	C	C-	D+	D	D-	F
Scale	73-76%	70-72%	67-69%	63-66%	60-62%	0-59%

Attendance and Class participation: This course is based on demonstrating comprehension of the materials presented, so students are required to attend every class. Unexcused absences will result in loss of points. Missing 4 or more classes will result in you failing the class. Participation in the classroom discussion is equally important, which will be counted towards your final grade.



Writing assignments: The writing assignments have specific due dates – papers handed in late will receive a penalty of 5% per day late. Writing assignments must be handed in as hard copies on the due date or if functioning by then, submitted to the Blackboard website.

Writing assignment requirements: No more than 1 page, double-spaced, font size 12:

For the summary of the Introduction of a paper, please cover the following points:

1. What is the scientific question that this study wants to address?
2. Why is this question important to biomedical research?
3. What is the relevance of this work to human health?

For the summary of a Figure, please cover the following points:

1. What is the hypothesis that the authors tested?
2. What methods did the authors use?
3. What are the experimental results?
4. What conclusions do the authors reach based on these results?

Oral presentation: We will have student presentations in each class starting from the discussion of Paper 2. Students will be organized into 4/group for each presentation. Each group will present a short talk during the class. Each Power Point presentations will be 15 minutes in length (12 min talk + 3 min Q&A). Students will be graded on knowledge of the topic, organization, ability to handle questions, etc.

COURSE GUIDELINES

This course is interactive and requires everyone's participation including writing, classroom discussion, presentation and group discussion.

The instructor is available during office hours and upon appointment. The instructor will also answer emails.

AVAILABLE RESOURCES

University Libraries

University Libraries are your gateway to information at the University of Toledo connecting you with the resources you need for education, and research.

Tutoring Services

Tutoring support for all UT students is available through the Learning Enhancement Center located in the Carlson Library. Tutoring Services are offered in an array of subjects, including Writing, Math (Calculus), Statistics, Accounting), Biology, Chemistry and Anatomy and Physiology

The Writing Center

The Writing Center provides free, face-to-face and online tutoring for writers in all disciplines. The staff there can assist you with a variety of writing assignments.

The Counseling Center



Transitioning to college and/or maintaining a healthy well-being while attending college can be difficult, if you or a friend ever feel overwhelmed adjusting to college or in need of crisis intervention or mental health services please contact the Counseling Center.

COURSE SCHEDULE (Subjected to changes)

Date	Topic
1/10	Organization and introduction
1/12	Scientific writing and its importance
1/17	Present Paper 1 by the instructor
1/19	Present Paper 1 by the instructor
1/24	Present Paper 1 by the instructor
1/26	Present Paper 1 by the instructor
1/31	Present paper 2
2/2	Present paper 2
2/7	Present paper 2
2/9	Present paper 2
2/14	Present paper 2
2/16	Field test
2/21	Field test
2/23	Present paper 3
2/28	Present paper 3
3/2	Midterm Exam
3/7	Spring break
3/9	Spring break
3/14	Present paper 3
3/16	Present paper 3
3/21	Present paper 3
3/23	Present paper 4
3/28	Present paper 4
3/30	Present paper 4
4/4	Present paper 4
4/6	Present paper 4
4/11	Present paper 5
4/13	Present paper 5
4/18	Present paper 5
4/20	Present paper 5
4/25	Present Paper 5
4/27	Final exam
5/9	Grades posted