

Writing in Biological Sciences
BIOL 5012.201 Tuesday 5:30–7:20 pm, Bolin Hall, Room 215

Instructor: Dr. M. Brown Marsden
Office: MCOSME Dean’s office, Bolin 111
Email: margaret.brownmarsden@msutexas.edu
Phone: 940-397-4253; direct line 940-397-4198
Office Hours: By appointment (call or email to schedule)

PURPOSE OF THE COURSE

This course engages students in the methods of scientific writing and publication. It helps graduate students become better writers in biology and other academic endeavors. Ultimately the goal is effective communication regardless of topic, audience, or type of writing.

RECOMMENDED TEXT:

Gastel, B. and R.A. Day (2016) *How to Write and Publish a Scientific Paper*, 8th Edition. Greenwood, Santa Barbara, California. ISBN 978-1-4408-4280-1

OVERALL COURSE GRADING:

Writing assignments, associated drafts, and timely completion of work comprise 80% of the course grade. The remaining 20% is from the work you do to support the collective writing efforts of others. Grade on writing exercises is based on final drafts. The writing portfolio grade includes your rough drafts. Overall grades determined based on A=90-100%, B=8—89%; C=70-79%; D=60-69%.

Course component	Percent
Your writing exercises (see the table below)	50%
Your writing portfolio (drafts and in-class work)	10%
Final draft of MS thesis proposal	20%
Your support of peers (see the table below)	20%
Total	100%

Your writing exercises: 50%

Your support of peers: 20%

Bio and CV	5%	Peer review of writing partner	10%
Research statement	5%	Attendance	5%
Précis	5%	Participation	5%
Abstract	5%		
Annotated bibliography	10%		
Popular science writing	10%		
Tables and figures exercise	5%		
Peer review exercise	5%		

FORMATTING REQUIREMENTS FOR WRITING ASSIGNMENTS

- 12 pt. Times New Roman font.
- Double-spaced
- Justified left margin, ragged right margin (as shown in this syllabus)
- 1-inch margins all the way around.
- Page numbers on all pages.
- Your name, date, title, draft number, and assignment category in the Header.

EXPECTATIONS

- A. Write about yourself in the form of a bio and curriculum vitae (CV).**
1. Create three forms of a biography: micro, short, and long.
 2. Create a CV.
- B. Write a research statement.**
1. Create a one-page first draft for peer review.
 2. Create a final draft that will become an element of the thesis proposal.
- C. Extract and critique an argument from a scientific paper.**
1. Choose a peer-reviewed **primary** journal article published within the last TWO years. Preferably this would be a journal article that relates to your research statements and thesis proposal.
 2. Analyze the structure of the argument and write a two-page précis of the paper.
 3. In the last part (final ½ page) of the précis, write a brief critique of the paper.
- D. Write an abstract for a published scientific paper.**
1. Choose a peer-reviewed **primary** journal article published within the last TWO years.
 2. Analyze the structure of the argument and write a précis of the paper.
- E. Write an annotated bibliography for your thesis proposal.**
1. Add five references to the references used for your research statement.
 2. Utilize appropriate reference citation format as described in the course.
 3. Annotate references to illustrate their relationship to your research problem.
 4. Submit a rough draft and a final draft of the annotated bibliography.
- F. Create a piece of popular science writing.**
1. Identify a key issue in science relevant to the public in the form of a.
 2. Write a news article, blog post, or editorial that requires approximately 7 minutes to read (1400-1700 words.)
 3. Turn in a rough draft and a final draft of the popular science writing.
- G. Create tables and figures for a given data set and determine the ideal presentation.**
1. Given a raw dataset and a set of instructions, determine how the dataset would be applied and discussed in a scientific paper.
 2. For each dataset, construct tables and figures.
 3. Present to the group and discuss the best data representation.
- H. For each writing assignment in the course, work with classmates by offering peer review.**
1. With your peer, offer useful critiques during the drafting and revising process.
 2. Submit critiques along with drafts.
 3. Include commentary on clarity, coherency, consistency, and correctness in each critique.
- I. Conduct a peer review of a published paper.**
1. Evaluate the significance and contribution of the paper to the body of knowledge in the biological sciences.
 2. Evaluate the experimental design, results, statistical analysis, and conclusion.
 3. Compile this peer review in a 750 to 1000 word document.
- J. Construct your MS thesis proposal.**
1. The thesis proposal will follow the required format used by the Biology Department.
 2. Four drafts will be submitted: 1st, 2nd, 3rd, and final.
 3. Note: You will receive an alternate assignment if you completed your MS thesis proposal.
- K. Compile all writing assignments, including drafts and peer review, in a writing portfolio.**
1. Failure to save documents and computer problems can affect the writing portfolio.
 2. You should keep backup versions of the writing portfolio to avoid document loss.

Date	Topic	Assignment Given	Assignment Due (R=rough, F=final)
11-Jan	Defining and approaching scientific writing; writing about yourself	Assignment 1: CV and Bio	Assignment 1 (R)
18-Jan	Dissecting a scientific paper, ethics and plagiarism, predatory publishing, research statements	Assignment 2: Research Statement	Assignment 1 (F)
25-Jan	Feedback to peers on research statement; Writing a précis	Assignment 3: Précis	Assignment 2 (R, F)
1-Feb	Dissection of a scientific paper; Writing a title/abstract	Assignment 4: Abstract	Assignment 3 (F)
8-Feb	Feedback to peers on title/abstract Writing an annotated bibliography; Writing the reference section	Assignment 5: Annotated bibliography	Assignment 4: (R, F)
15-Feb	Making science accessible through popular science writing	Assignment 6: Popular science writing	Assignment 5 (R)
22-Feb	Feedback to peers on popular writing		Assignment 5 (F) Assignment 6 (R)
1-Mar	Intro, methods results; analysis of tables and figures	Assignment 7: Tables and figures	Assignment 6 (F),
8-Mar	Peer review of a published paper; discussion sections; Thesis proposal;	Assignment 8: Peer review of a published paper	Assignment 7 (F)
15-Mar	SPRING BREAK		
22-Mar	Feedback on the peer review process	Assignment 9: Thesis proposal	Assignment 8 (F)
29-Mar	In-class work on Assignment 9		Assignment 9: Draft 1
5-Apr	Group discussion of thesis proposal progress		
12-Apr	In-class work on Assignment 9		Assignment 9: Draft 2
19-Apr	Group discussion of thesis proposal progress		
26-Apr	Course evaluations, exit survey		Assignment 9: Final draft

COURSE POLICIES:

Email

Email is the best way of communicating. Ensure that you receive your MSU email or have your mail forwarded to an address you regularly check. I strive to respond within 24 hours to emails during regular school hours (8:00 am – 5:00 pm M- F). Emails sent after business hours or during the weekend receive a response the following business day. When writing an email, use professional email etiquette.

Attendance and Cellphones

We only meet one day per week, so I expect all of you to be in class. Attendance for all exams and seminar presentations is mandatory due to the peer evaluation of presentations. I deduct points from your final grade for any days missed.

Laptops and Cellphones

You should bring a laptop computer for in-class work, as there will frequently be in-class writing assignments and collaboration on editing. Please do not use your phone while in class unless asked.

Notification of faculty

Alert Dr. Brown Marsden concerning illness or unexpected circumstances by email and phone. Contact information appears above.

It is not sufficient to notify Dr. Brown Marsden about illness or unexpected circumstances through a note on her office door or a friend. As such, it will not merit consideration.

Academic Honesty

Any action suspicious of cheating, attempting to cheat, or helping someone cheat (such as but not limited to looking on someone else's paper, using notes, using a cell phone or any electronic device, recording or communicating exam content to other students) will result in termination of your exam and a grade of zero. Cheating will evoke the [University Academic Misconduct Policy](#).

Students with Disabilities

If you have a disability that requires accommodation, please contact [Disability Support Services](#) in Room 168 of Clark Student Center (940) 397-4140.

Concealed Carry

Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Signs demarcate areas excluded from concealed carry. Please refer to the [Campus Carry link](#) for more information.