



20412 OCE 6934 (614)  
WRITING A SCIENTIFIC PAPER  
CREDIT HOURS: 3  
COLLEGE OF MARINE SCIENCE

## COURSE SYLLABUS

January 11, 2023

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Semester: Spring 2023  
Class Meeting Days: Wed  
Class Meeting Time: 3:10–5:50 pm  
Class Meeting Location: KRC 2116 and online  
Instructor: Pamela Hallock Muller  
Office Location: MSL 220A  
Office Hours: To be determined to best accommodate class members' schedules  
Phone Number: Cell: 727-439-4597  
Email: pmuller@usf.edu

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### I. Welcome!

Have you carried out a basic piece of research about which you are ready to write? That is, are you prepared to write your thesis or a chapter of your dissertation, or submit a manuscript for publication? But for some reason you are not quite certain how to begin, or how your objectives or findings should be presented? Your goal for this semester should be to produce a manuscript that is ready to be presented to your advisor or supervisor, either for submission for a graduate degree or for publication in a scientific journal. In this course you will have the opportunity to undertake and understand the process of preparing, revising and producing a publishable manuscript.

### II. University Course Description

This course provides students, who are prepared to write, the opportunity to understand the process of preparing, revising and producing a publishable manuscript, as well as the ethical responsibilities associated with scientific publishing.

### III. Course Prerequisites

No formal course prerequisites.

### IV. Course Purpose

Scientific and technical writing is very different from creative writing. Sometimes the most talented graduate students find scientific writing challenging, especially if they have any background in creative writing. The goal of this course is to provide students, who have data or a review topic about which they are ready to write, an opportunity to work together to understand the process of preparing, revising and producing a publishable manuscript. The participants will also learn ethical responsibilities associated with scientific publishing.

### V. How to Succeed in this Course

This course relies on students' self-motivation and self-learning. Please prepare for each class meeting, as your preparation facilitates effective discussions as well as forwarding your goal to produce a publishable product. Please demonstrate respect for your classmates and all others. Do not engage in any

unethical behaviors, such as plagiarism on written assignments. We will discuss ethics in scientific communication later in the semester. Keep in mind the following three caveats to succeed in this course: (1) read the assigned reading materials before each class; (2) participate in class discussion; (3) do each and every writing assignment!

This is a hybrid courses; successful students should follow these tips to succeed in classes where they switch between remote and in-person attendance: <https://www.usf.edu/atle/documents/student-best-practices-hybrid.pdf>.

1. Check Canvas and emails daily for announcements
2. Close down other programs and apps before class begins
3. When possible, plug in to a wired internet connection, rather than rely on WiFi
4. If new to Canvas, see <https://usflearn.instructure.com/>

## VI. Student Learning Outcomes

Students completing the course will demonstrate the ability to write a scientific paper including a) choosing a scientific journal appropriate to their subject and career needs; b) demonstrating strategies for assembling and organizing their data into publishable form; c) understanding the ethical considerations and responsibilities of a scientist involved in the publication process as an author, co-author, and peer reviewer; d) providing peer reviews of papers of other members of the class; e) responding to peer reviews of their manuscripts; f) experiencing that even very well written papers can benefit from reviewer and editor recommendations; g) meticulously editing their manuscripts for consistency in style, as well as clarity in language and grammar; h) writing a cover letter required to submit their manuscript for publication.

## VII. Required Texts, Readings and Course Materials

Required Text: Lindsay, D. 2011. *Scientific Writing—Thinking in Words*. Australia: CSIRO Publishing. 122 pp. ISBN: 9780643100466 (pbk.), 9780643101579 (ePdf), 9780643102231 (ePub)

The pdf will be posted on Canvas or you can purchase on the web for ~ \$25 if you prefer a hard copy.

Katz, M.J. 2009. *From Research to Manuscript, A Guide to Scientific Writing, Second Edition*. Springer, 205 pp. ISBN 978-1-4020-9467-5. Assigned readings will be posted on Canvas

### • Other required readings or resources by class meeting:

#### 1. Jan 9. We will discuss the following web-based presentation during class:

<http://www.slideshare.net/ingeremewburn/write-that-journal-article-in-7-days-12742195>

**Reading:** Lindsay (2011), p. 1–14

#### 2. Jan 11, 18. Preliminary Title, Abstract, Topic outline, Objectives, assembling data

There will be in-class writing assignments, so bring your notes and data to class. For class discussion, upload a pdf of a published paper that you think is well written. Also, bring a list of at least three journals in which you would be interested in publishing, including a major journal in your general field, a specialty journal in your field, and a local or regional journal.

**Reading:** Lindsay (2011), p. 15–27, 31–39, 49–51

#### 3. Jan. 25. Review papers and managing references:

**Reading:** Lindsay (2011), p. 95–99

Resource on writing review papers is listed below (pdfs on Canvas). For class discussion, upload at least one published review paper that you think is well written.

<http://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1003149>

A web reference on referencing management software (there are lots more)

<https://guides.library.utoronto.ca/c.php?g=250610&p=1671260>

#### 4. Feb. 1. Submitting to *Science* or *Nature* Brembs (2018); Conway & John (2014);

Deutsch et al. (2015) or a paper of your choice from *Science* or *Nature*

**5. Feb 8. Start with what you know best: Methods and Results; designing figures and tables**

Bring your data and drafts to class for discussion and in-class work. Also upload a pdf of at least one published paper for class discussion that you think has excellent figures and tables, as well a one that you think has shortcomings.

**Readings:** Lindsay (2011), p. 28–38.

*Almost Everything You Wanted to Know About Making Tables and Figures:*

Pdf of the following will be on Canvas

**6. Feb 15. More work on results, figures and tables**

Upload or bring to class your data and drafts for discussion and in-class work.

**7. Feb 22. Should that be in the Introduction or Discussion? Lindsay: pages 20–27, 39–49**

Upload drafts of your work to class for discussion and in-class work.

**8. Mar 1. Ethics–pdfs are available on Canvas**

Benos, D.J., Fabres, J., Farmer, J., Gutierrez, J.P., Hennessy, K., Kosek, D., Lee, J.H., Olteanu, D., Russell, T., Shaikh, F., Wang, K. 2005. Ethics and scientific publication. *Advances in Physiology Education* 29: 59–74.

Bolton, P.A. 2002. Chapter 16. Scientific Ethics.

**9. Mar 8. Finalizing the Draft**

**Readings:** Lindsay (2011), p. 49–53.

Upload drafts of your Title, Abstract, Conclusions, and Acknowledgments for in-class discussion and coaching

**10. Mar 22. Composing and revising: spotting persistent problems**

**Readings:** Lindsay (2011), p. 55–76

We will be using your writing as examples.

**11. Mar 29. Responsibilities of reviewers**

You will be assigned reviewer responsibilities for two manuscripts.

Elisabeth Bik has a series of short blog posts about how to peer review:

Peer review 101, Part 1: How to critically read a manuscript

<http://www.microbiomedigest.com/?p=2849>

Peer review 101, Part 2: Writing the peer review

<http://www.microbiomedigest.com/?p=2851>

Peer review 101, Part 3: Submitting the peer review

<http://www.microbiomedigest.com/?p=2853>

Peer review 101, Part 4: Managing peer review requests

<http://www.microbiomedigest.com/?p=2855>

**March 29: Manuscript drafts due to PHM and reviewers by class time (3 pm)**

**12. Apr 5. Writing about science for the public–Guest speaker: Kristen Kusek**

**Readings:** TBA

**Apr. 5. Bring one-page summary of your paper topic to re-write for a press release**

**13. Apr 12 Discussion on When and Where to Publish**

**Readings:** Lindsay (2011), p. 71–72; Katz (2009), p. 165–169.

Butler, D. 2013. The dark side of publishing. *Nature*, 495:433-435. (pdf will be on Canvas)

Be prepared to ask at least 2 questions of panelists.

*Ways to Identify a Questionable Open Access Journal:*

<https://www.aje.com/en/author-resources/articles/8-ways-identify-questionable-open-access-journal>

**Apr. 12. Assigned reviews are due to PHM and authors by 5 pm.**

**14. Apr 19. Responding to co-authors, reviewers and editors**

**Reading:** Katz (2009), p. 179–181.

**15. Apr 26. Journal Instructions to Authors.**

**Reading:** Lindsay (2011), p. 72–76.

Bring a draft cover letter, with possible reviewers identified, to class for discussion.

Provide a link to the “Instructions to Authors” for the journal for which you are preparing your manuscript. This class meeting will be dedicated to in-class coaching and discussion. Students are encouraged to bring any writing, formatting or illustration issues that may have them “stuck” or that they feel could be improved upon by either full-class or one-on-one coaching.

**May 3. Final papers due 5 pm: hard copy and digital**

**VIII. Supplementary Resources**

Strunk Jr., W., and White, E.B. 1999. *The Elements of Style*, 4th Ed. Harlow, England: Longman, 105 p.

Older versions are available free on line: e.g.,

<https://courses.washington.edu/b572/public/StrunkWhite.pdf>

Truss, L. 2003. *Eats, Shoots & Leaves: The Zero Tolerance Approach to Punctuation*. New York: Penguin Books, 209 p.

Zinsser, W. *On Writing Well, 30th Anniversary Edition: The Classic Guide to Writing Nonfiction*. New York: Harper Collins Publishers, 321 p.

Belcher, W.L. 2009. *Writing Your Journal Article in Twelve Weeks: A Guide to Academic Publishing Success*. Thousands Oaks, CA: Sage Publications. 376 p.

**IX. Grading Scale**

| Grading Scale (%) |    |
|-------------------|----|
| 94–100            | A  |
| 90–93             | A- |
| 87–89             | B+ |
| 84–86             | B  |
| 80–83             | B- |
| 77–79             | C+ |
| 74–76             | C  |
| 70–73             | C- |
| 67–69             | D+ |
| 64–66             | D  |
| 60–63             | D- |
| 0–59              | F  |

|   |                   |             |
|---|-------------------|-------------|
| <b>X. Grade Categories and Weights</b>                              |                   |             |
| Participation: in-class activities, discussions, writing activities | 100 points        | 40%         |
| Reviewing assignments   | 50 points         | 20%         |
| Manuscript prepared for journal of choice                           | 100 points        | 40%         |
| <u>Total</u>  | <u>250 points</u> | <u>100%</u> |

**XI. Project Assignments**

- Mar 29 Manuscript Drafts Due to PHM and reviewers
- Apr 12 Manuscript reviews due
- May 3 Final papers due

**XII. Grade Dissemination**

Graded materials in this course will be returned individually. You can access your scores at any time using "Grades" in Canvas.

**XIII. Course Schedule (Note: This Schedule is subject to revision)**

| <u>Date</u>  | <u>Topic</u>   | <u>Reading Assignments</u>   |
|--------------|--|--|
| Jan 11       | Introduction to course. Why are you here?<br>What are your challenges in writing?        | Lindsay: pages 1–14<br>Web resources                               |
| Jan 18       | Prelim. Title, Abstract, Objectives, Topic outline                                       | Lindsay: p. 15–27, 31–39, 49–51                                    |
| Jan 25       | Literature: Writing scientific review papers;<br>managing references from the start      | Lindsay: pages 95–99<br>web resources                              |
| Jan 30       | When and Where to Publish–Panel Discussion<br>Panelists: To be announced                 | Lindsay: pages 71–72<br>Katz: 165–169, Butler (2013)               |
| Feb 1        | Submitting to <i>Science</i> or <i>Nature</i>  | Papers suggested or a paper of your choice                         |
| Feb 8        | Start with what you know best: Methods and Results<br>Designing your Figures and Tables  | Lindsay: p. 28–38, web resource<br>Journal Instructions to Authors |
| Feb 15       | More Results, Figures and Tables   |  |
| Feb 22       | Should that be in the Introduction or Discussion?  | Lindsay: pages 20–27, 39–49  |
| Mar 1        | Ethics and scientific publication  | Benos et al. (2005); Barlow et al. (2018)                          |
| Mar 8        | Finalizing the draft: Title, Abstract, Conclusions,<br>Acknowledgments, References       | Lindsay: pages 49–53   |
| Mar 13-19    | Spring Break   |  |
| Mar 22       | Writing and editing: spotting persistent problems  | Lindsay: pages 55–76   |
| Mar 29       | Responsibilities of the reviewer<br>In class coaching and discussion                     | See “Assignment Details”   |
|              | <b>Mar 29. Manuscript Drafts Due to PHM and reviewers by 5 pm</b>                        |  |
| <b>Apr 5</b> | Writing science for the public: Guest Speaker: Kristen Kusek                             | Reading TBA  |
|              | <b>Apr 5. Bring one-page summary of your paper topic to re-write for a press release</b> |  |
| Apr 12       | Submitting to <i>Science</i> or <i>Nature</i>  | Paper of your choice from each                                     |
|              | <b>Apr 12. Reviews Due</b>   |  |
| Apr. 19      | Cover letters, responding to reviewers and editors                                       | Katz: 179–181  |
| Apr. 26      | Final stages<br>Reviewing Journal Instructions to Authors                                | Lindsay: pages 72–76<br>Instructions for your journal choice       |
|              | <b>May 3. Final papers due by 5 pm</b>   |  |

#### **XIV. Standard University Policies**

Policies about disability access, religious observances, academic grievances, academic integrity and misconduct, academic continuity, food insecurity, and sexual harassment are governed by a central set of policies that apply to all classes at USF. These may be accessed at:

<https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx>

#### **XV. Covid-19 Procedures**

All students must comply with university policies and posted signs regarding COVID-19 mitigation measures, including wearing face coverings and maintaining social distancing during in-person classes. Failure to do so may result in dismissal from class, referral to the Office of Student Conduct and Ethical Development, and possible removal from campus.

Additional details are available on the University's Core Syllabus Policy Statements page:

<https://www.usf.edu/coronavirus/>

#### **XVI. Course Policies: Grades (as applicable)**

**Late Work Policy:** Assignments turned in late will be assessed a penalty: two points per day late.

**Grades of "Incomplete":** Offer specifics about your policy on incomplete grades.

The current university policy concerning incomplete grades will be followed in this course.

For graduate courses: An Incomplete grade ("I") is exceptional and granted at the instructor's discretion only when students are unable to complete course requirements due to illness or other circumstances beyond their control. The course instructor and student must complete and sign the "I" Grade Contract Form that describes the work to be completed, the date it is due, and the grade the student would earn factoring in a zero for all incomplete assignments. The due date can be negotiated and extended by student/instructor as long as it does not exceed two semesters for undergraduate courses and one semester for graduate courses from the original date grades were due for that course. An "I" grade not cleared within the two semesters for undergraduate courses and one semester for graduate courses (including summer semester) will revert to the grade noted on the contract.

#### **Essay Commentary Policy:**

Edits and commentary on writing assignments will be made on the docx manuscripts submitted.

**Final Examinations Policy:** There is no final exam, a final paper is required.

#### **XVII. Course Policies: Technology and Media (as applicable)**

**Email:** Please e-mail [pmuller@usf.edu](mailto:pmuller@usf.edu) with questions or concerns; you may submit written assignments either through Canvas or via e-mail. This may change if circumstances require.

**Canvas:** This course will be offered via USF's learning management system (LMS), Canvas. If you need help learning how to perform various tasks related to this course or other courses being offered in Canvas, please view the videos or consult the Canvas help guides. You may also contact USF's IT department at (813) 974-1222 or [help@usf.edu](mailto:help@usf.edu).

**Laptop Usage:** Have your reading and writing assignments available to share on Teams.

**Classroom Devices/Student Recording:** You may record my lectures if you wish; student discussions can only be recorded by permission of all present.

**Phone Usage:** Please silence your phone during class.

## XVIII. Course Policies: Student Expectations

**Attendance Policy:** Class attendance is expected, though field and meeting activities are inevitable. *Please note that students who anticipate being absent from class for previously scheduled activities or religious observance should inform the instructor by the second class meeting.* If you are ill or have a personal emergency, please let PHM know by class time, if possible. If you miss a class, you are still responsible for the activities for that class. If you are recovering from an illness or have been exposed, please participate virtually.

**Academic Integrity Policy:** The [USF Policy on Academic Integrity](#) specifies that students may not use websites that enable cheating, such as by uploading or downloading material for this purpose.

**Professionalism Policy:** Per university policy and classroom etiquette; mobile phones, iPods, etc. **must be silenced** during classroom activities. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, etc., and have been warned may suffer a reduction in their final class grade.

**End of Semester Student Evaluations:** All classes at USF make use of an online system for students to provide feedback to the University regarding the course. These surveys will be made available at the end of the semester, and the University will notify you by email when the response window opens. Your participation is highly encouraged and valued.

## XIX. Learning Support and Campus Offices

### Tampa Campus

**Writing Studio:** The Writing Studio is a free resource for USF undergraduate and graduate students. At the Writing Studio, a trained writing consultant will work individually with you, at any point in the writing process from brainstorming to editing. Appointments are recommended, but not required. For more information or to make an appointment, email [writingstudio@usf.edu](mailto:writingstudio@usf.edu)

**Counseling Center:** The Counseling Center promotes the wellbeing of the campus community by providing culturally sensitive counseling, consultation, prevention, and training that enhances student academic and personal success. Contact information is available [online](#).

**Center for Victim Advocacy:** The Center for Victim Advocacy empowers survivors of crime, violence, or abuse by promoting the restoration of decision making, by advocating for their rights, and by offering support and resources. Contact information is available [online](#).

### St. Petersburg Campus

**Student Success Center:** The Student Success Center provides free tutoring and writing consultations. Contact information is available [online](#).

**Wellness Center:** The Wellness Center provides counseling and medical services, as well as prevention programs and victim advocacy. Contact information is available [online](#).

## XX. Important Dates to Remember

Class meeting topics and assignment dates are tentative, and can be changed at the discretion of the professor. Be sure to get the newest dates from the Registrar: <https://www.usf.edu/registrar/calendars/>

|                             |                     |
|-----------------------------|---------------------|
| State employee registration | January 5 at 5 pm   |
| Drop/Add Deadline:          | January 13, 2023    |
| MLK, Jr. Holiday:           | January 16, 2023    |
| Withdrawal Deadline:        | March 25, 2023      |
| Spring Break:               | March 13–19, 2023   |
| Final Examination Week:     | Apr. 29–May 4, 2023 |