Principles of Scientific Writing

FES 505 (1 credit) Winter 2020

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Office hours by appointment

*Course overview:*

Writing is a critical part of science. This course explores the writing process as laid out by Dr. Joshua Schimel in his book: *Writing Science*. This book examines different components of a scientific paper or proposal, beginning with how ideas are framed and concluding with specific grammatical tips on writing well. We will emphasize features of effective writing and the analysis and review of scientific writing. We will focus in particular on how the concepts presented in *Writing Science* apply to editing. Editing is a key part of writing that can be overlooked as students begin their academic work. But, editing your own work and the work of others is a crucial part of the writing process. This course is indented to provide students with skills to help with scientific writing and editing at any stage in their program. While material in this seminar has obvious application to ongoing writing efforts, this course does **not** guide you through writing a specific paper, and you *do not need to be working on a manuscript to take this class*.

*Learning outcomes:*

By the end of the class, students will be able to do the following:

* Identify the writing structure for papers and proposals.
* Identify common mistakes in writing and potential ways to fix them.
* Review scientific writing to improve clarity and flow of ideas.

*Assignments:*

* We will be reading two chapters per week in the book “Writing Science” by Josh Schimel.
* Each week students will apply lessons from that week’s chapters in the analysis of a piece of scientific writing that they have chosen from their field.
* We will have weekly discussions in class that focus on the analysis prompt from each chapter and how each student’s chosen paper does or does not fit within the writing framework suggested by Dr. Schimel.
* Each week we will have a follow-up to the in-class discussion online (optional participation).

Evaluation:

Grades will be pass/fail and will be based on attendance and on participation in class and/or online discussions.

* We will read *Writing Science* by Josh Schimel (see below). We will follow writing analyses suggested in this book at the end of each chapter in which each student will also be expected to find and evaluate a piece of published writing from their field for each week’s discussion.

*Learning resources:*

Schimel, J. 2012. *Writing Science: How to write papers that get cited and proposals that get funded*. Oxford University Press. New York, NY. 221p.

Schedule

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| Week | Date | Topic/chapters |
| Week 1 | Week of 1/6/20 | Introduction  Chapter 1 – Writing in Science |
| Week 2 | Week of 1/13/20 | Chapter 2 – Science Writing as Storytelling  Chapter 3 – Making a story Sticky |
| Week 3 | Week of 1/20/20 | Chapter 4 – Story Structure  Chapter 5 – The Opening |
| Week 4 | Week of 1/27/20 | Chapter 6 – The Funnel: Connecting O and C  Chapter 7 – The Challenge |
| Week 5 | Week of 2/3/20 | Chapter 8 – Action  Chapter 9 – The Resolution |
| Week 6 | Week of 2/10/20 | Chapter 10 – Internal Structure  Chapter 11 – Paragraphs |
| Week 7 | Week of 2/17/20 | Chapter 12 – Sentences  Chapter 13 – Flow |
| Week 8 | Week of 2/24/20 | Chapter 14 – Energizing Writing  Chapter 15 – Words |
| Week 9 | Week of 3/2/20 | Chapter 16 – Condensing  Chapter 17 – Putting it all together |
| Week 10 | Week of 3/9/20 | Chapter 18 – Dealing with Limitations  Chapter 19 – Writing Global Science |
| NO FINAL | NO FINAL | NO FINAL |
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