

**MSE 598: Research Writing & Communication**  
**University of Illinois at Urbana-Champaign**  
**Department of Materials Science**

**Instructor:** Prof. Angela M. Slates  
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**Course Information**

**Course website:** Canvas  
**Course:** MSE 598  
**Semester:** Spring 2024  
**Credit:** 4 Credit Hours  
**Class meets:** Th 12:30-3:50pm  
**Location:** 208 Materials Research Lab  
**Modality:** In-Person

**Learning Resources:**

**\*\*Bring your laptop to class!**

**Required Textbook:**

Schimmel, J. (2012) Writing Science: How to write papers that get cited and proposals that get funded. Oxford University Press.

**Recommended Text:**

Barros, L. (2016) The Only Academic Phrasebook You'll Ever Need: 600 examples of academic language. Createspace Independent Publishing Platform.

**Course Description:**

This is a research writing group course. During this course, you will complete an article, proposal, dissertation chapter or report, review/practice research writing principles, review/practice communication principles, provide and receive feedback from your peers.

**Course Overview and Learning Objectives:** This course primarily aims to equip graduate students in the sciences with essential writing skills to better prepare them for their future careers in engineering. Success in science and engineering disciplines hinges on the capacity to communicate effectively through various written formats, such as research papers, reports, proposals, grants, and more. The ability to convey ideas clearly and persuasively to diverse audiences is vital.

Through the practice of writing within your specific discipline, this course intends to help you discover and develop your unique professional voice. It also seeks to foster your identity as a knowledgeable contributor and producer of valuable insights within your field. Additionally, this course will empower you to successfully navigate and fulfill the necessary departmental requirements throughout your academic journey.

Using peer driven discussions, peer-to-peer reviewing and project-based learning principles, this course will guide students in completing one of the following:

- Internship project report
- Research publication
- Literature review
- Qualifying exam
- Dissertation chapter
- Grant proposal

At the end of the course, students will be able to:

- Gain an understanding of the appropriate structure of research and project report writing in their field of study, and be able to compose research proposals, articles and posters/presentations, effectively.
- Learn about research presentations, and be able to generate and deliver presentations about their own research in both formal and informal settings for diverse audiences
- Gain experience in working in groups and communicating with individuals from different backgrounds, cultures, and research disciplines
- Use reliable and varied evidence to support claims, incorporate sources from others appropriately, and acknowledge and review the works of others appropriately
- Gain an understanding of the structure of research literature, develop skills for identifying appropriate references within their field of research and identify and organize citations

**Course Format:**

Class will meet on Thursdays from 12:30-3:50pm. Each class meeting, we will start with a discussion and review of the video of the week. We will review the assigned chapter(s) from “Writing in Science” and participate in a relevant activity. Students will then break out into groups or work solo to review the assignment for the week and/or maximize free writing time. At the end of the semester, students will deliver a 5-min talk on their writing project, then submit their final paper.

**Final papers due May 9<sup>th</sup>.**

**Course Requirements and Assessment:**

*4 graduate Credit Hours:*

Class Participation	25%
Project Assignments	25%
Project Presentation	25%
Final Paper	25%
<b>Total</b>	<b>100%</b>

**Letter grades will be assigned as follows:**

A	93.0 – 100%	B-	80.0 – 82.9%	D+	67.0 – 69.9%
A-	90.0 – 92.9%	C+	77.0 – 79.9%	D	63.0 – 66.9%
B+	87.0 – 89.9%	C	73.0 – 76.9%	D-	60.0 – 62.9%
B	83.0 – 86.9%	C-	70.0 – 72.9%	F	00.0 – 59.9%

**Note: All assignments are due by 11:59pm on the “DUE” date.**

\*In-class free writing time is still provided on the DUE date, use this time wisely.

\*\*Be sure to turn your work in on time.

**Course Schedule, Assignments and Due Dates:**

Week Number/Dates	Topic(s)	Assignments
1 (1/18)	<b>Introductions and course expectations</b>  Discussion Video: <a href="#">Imposter Syndrome</a>	<b>Assignments:</b> ✓Research Abstract assigned ✓Project selection/proposal assigned <b>In-Class:</b> Course overview Video and discussion Video discussion facilitation sign-up Abstract/project proposal - free writing <b>Read for next week:</b> ✓Schimel “Writing Science” Ch 1-2 <b>Note:</b> Tools for writing your abstract are available on Canvas
2 (1/25)	<b>Story Telling</b>  Discussion Video: <a href="#">“The Neuro Story Net and the Make Sense Mandate”</a>	<b>DUE TODAY – Abstract &amp; Proposal Assignments:</b> ✓Project outline assigned <b>In-Class:</b> Video and discussion Take aways - Schimel Ch 1-2 Abstract/project proposal - Free writing <b>Read for next week:</b> ✓Schimel “Writing Science” Ch 3-4 <b>Note:</b> Tools for writing your outline are available on Canvas
3 (2/1)	<b>Making a Story Stick</b>  Discussion Video: <a href="#">Writing for diverse audiences</a>	<b>Assignments:</b> ✓Study Partner(s) Selection <b>In-class:</b> Video and discussion Take aways - Schimel Ch 3-4 Outline - free writing time <b>Reading for next week:</b> ✓Schimel “Writing Science” Ch 5-6 <b>Note:</b> Tools for writing your outline are available on Canvas
4 (2/8)	<b>First Impressions</b>  Discussion Video: <a href="#">Writers Block</a>	<b>DUE TODAY – Outline Assignments:</b> ✓Project Introduction assigned <b>In-class:</b> Video and discussion Take aways - Schimel Ch 5-6 Project “Introduction” free writing time <b>Reading for next week:</b> *Schimel “Writing Science” Ch 7 <b>Note:</b> Tools for writing your Introduction are available on Canvas

5 (2/15)	<b>The Challenge</b>  Discussion Video: <a href="#">Gender Inequality in Science</a>	<b>Assignments:</b> ✓Project “Introduction” continued <b>In-class:</b> Video and discussion Take aways - Schimel Ch 7 Introduction - free writing time <b>Reading for next week:</b> *Schimel “Writing Science” Ch 8-12 <b>Note:</b> Tools for writing your Introduction are available on Canvas
6 (2/22)	<b>Action</b>  Discussion Video: <a href="#">Giving Feedback</a>	<b>DUE TODAY – Introduction “draft”</b> <b>Assignments:</b> ✓Project Introduction continued ✓Peer reviews assigned <b>In-class:</b> Video and discussion Take aways - Schimel Ch 8-12 Overview - Peer-review process/plan Introduction - free writing time <b>Reading for next week:</b> ✓Schimel “Writing Science” Ch 13-15 <b>Note:</b> Tools for writing your Introduction are available on Canvas
7 (2/29)	<b>Words &amp; Flow</b>  Discussion Video: <a href="#">The benefits of not being a jerk to yourself</a>	<b>Assignments:</b> ✓Peer reviews continued <b>In-class:</b> Video and discussion Take aways - Schimel Ch 13-15 Peer-reviews - free writing time <b>Reading for next week:</b> ✓Schimel “Writing Science” Ch 16-17 <b>Note:</b> Tools for writing your Peer-review are available on Canvas
8 (3/7)	<b>Putting It All Together</b>  Discussion Video: <a href="#">Body Language – fake it until you become it</a>	<b>DUE TODAY - Peer reviews</b> <b>In-class:</b> Video and discussion Take aways - Schimel Ch 16-17 Peer-reviews - free writing time Methods section - free writing time <b>Note:</b> Tools for writing your Methods section are available on Canvas
9 (3/14) SPRING BREAK		
10 (3/21)	<b>Your Future Self</b>  Discussion Video: <a href="#">What your future self wants</a>	<b>Assignments:</b> ✓Methods section assigned <b>In-class:</b> Video and discussion Peer-review discussion Methods section - free writing time <b>Reading for next week:</b> ✓Schimel “Writing Science” Ch 18

		<b>Note:</b> Tools for writing your Methods section are available on Canvas
<b>11 (3/28)</b>	<b>Dealing with Limitations</b>  Discussion Video: <a href="#">Making a better research poster</a>	<b>Assignments:</b> ✓Methods section continued ✓5min Project Talk - assigned <b>In-class:</b> Video and discussion Take aways - Schimel Ch 18 Methods section - free writing time 5min Project Talk - free writing time <b>Reading for next week:</b> ✓Schimel “Writing Science” Ch 19-21 <b>Note: Note:</b> Tools for building your Project Talk are available on Canvas
<b>12 (4/4)</b>	<b>Resolution</b>  Discussion Video: <a href="#">How to Think like an Entrepreneur</a>	<b>Assignments:</b> ✓5min Project Talk continued <b>In-class:</b> Video and discussion Take aways - Schimel Ch 19-21 Methods section - free writing time 5min Project Talk - free writing time <b>Note: Note:</b> Tools for building your Project Talk are available on Canvas
<b>13 (4/11)</b>	<b>Three Magic Ingredients</b>  Discussion Video: <a href="#">Three Magic Ingredients</a>	<b>Assignments:</b> ✓5min Project Talk continued ✓Methods section continued ✓Final paper assigned <b>In-class:</b> Video and discussion Free writing time
<b>14 (4/18)</b>	<b>Free Writing</b>	<b>Free Writing Day</b>
<b>15 (4/25)</b>	<b>5-min Project Talks</b>	<b>DUE TODAY – 5min Project Talks</b> <b>In-class:</b> 5min Project Talks
<b>(5/9)</b>		<b>Final paper DUE</b>