Course Syllabus – COMM 450

Course Information

Course Number: COMM 450 FA25
Course Name: The Science of Writing Science
Term: FA 2025
Start Date: 09/02/2025
End Date: 12/05/2025
Credits: 3.0

Meeting Days / Times

Tuesdays and Thursdays, 1:15-2:45pm PT / 4:15-5:45pm ET
(See Calendar in Canvas for the most up-to-date schedule.)

Location

CA: Graduate Office Dining Room (Hazen Theory Building)
FL: A116

Course Managers

Role	Last Name	First Name	Email Address
Course Director	Teyton	Luc	lteyton@scripps.edu
TA	Allen	Dale	dallen@scripps.edu
TA	Barkdull	Allison	abarkdull@scripps.edu

Course Description

This course is intended for students to acquire the necessary skills to be proficient in writing communication. All aspects of writing will be addressed from communication with the administration and your peers, to writing manuscripts and grants. Most of the classes will be interactive and participatory. A short 20-minute introduction will be necessary for some of the classes. Everybody will progress in this required skill of the scientist.

Program Learning Outcomes

By the end of the program, students will have accomplished these objectives:
PLO1: Original Research – graduate students are expected to develop the skills critical for generating high-quality research output. This would include absorbing, recalling, and contextualizing scientific knowledge, evaluating scientific information and data, creating testable hypotheses and investigating hypotheses, mastering scientific tools and techniques, displaying ethical behavior, and receiving and giving feedback.
PLO2: Communication – graduate students are expected to demonstrate the oral, written, and media skills to effectively communicate the impact of a study or a body of work to the greater scientific community and to the public at large using a number of methods.

PLO3: Critical Thinking – graduate students are expected to develop a self-directed process to analyze information, form opinions or judgments, and use this process to improve the quality of their scientific thoughts, navigate problems, and make informed decisions.
PLO4: Intellectual Curiosity – graduate students are expected to acquire the capacity to build their intellectual curiosity and demonstrate problem solving approaches that serve their professional growth and ability to impact a field.
PLO5: Career and Professional Development – graduate students are expected to develop a variety of transferable skillsets throughout their graduate experience, including management and leadership, inclusiveness, resilience, scientific rigor, collaboration, accountability, time management, teamwork, networking, and career planning.

Course Learning Outcomes

Upon completion of this course students will be able to:
CLO1: Understand that writing is an indispensable skill in science.
CLO2: Learn the basic principle to communicate their science in a written form.
CLO3: Master the iterative process of writing and editing.
CLO4: Acquire the written communication skills necessary to communicate with their peers, the local, NIH, and organisms' administrations.

Background Preparation (Prerequisites)

N/A

Course Materials

Useful to Consult: Heard (2016). *The scientist's guide to writing: How to write more easily and effectively throughout your scientific career*. ISBN: 978-0691170220.
Useful to Consult: Schimel (2011). *Writing science: How to write papers that get cited and proposals that get funded*. ISBN: 978-0199760244.

Course Requirements

Each of the four sections will have a homework assignment consisting of a short write-up.

- Section #1: Introduction to writing
- Section #2: Other matters
- Section #3: Writing a scientific paper
- Section #4: Writing a grant

Attendance Statement

Students are expected to attend all classes. Students who are unable to attend class must seek permission for an excused absence from the course director or teaching assistant. Unapproved absences or late attendance for three or more classes may result in a lower grade or an "incomplete" for the course. If a student has to miss a class, he or she should arrange to get notes from a fellow student and is strongly encouraged to meet with the teaching assistant to obtain the missed material.

Scientific and Professional Ethics

The work you do in this course must be your own. Feel free to build on, react to, criticize, and analyze the ideas of others but, when you do, make it known whose ideas you are working with. You must explicitly acknowledge when your work builds on someone else's ideas, including ideas of classmates, professors, and authors you read. If you ever have questions about drawing the line between others' work and your own, ask the course professor who will give you clear guidance. Exams must be completed independently. Any collaboration on answers to exams, unless expressly permitted, may result in an automatic failing grade and possible expulsion from the Graduate Program.

Technology Requirements and Support

For issues related to Canvas, please contact the Graduate Office by email at: gradprgm@scripps.edu or by phone at: 858-784-8469.

Course Grading

Grading is in accordance with the academic policies of the Skaggs Graduate School. The breakdown of grading is as follows:

- Homework 1: 30%
- Homework 2: 50%
- Participation: 20%

Letter Grade	Percent	GPA	Description
A	93-100	4.00	Outstanding achievement. Student performance demonstrates full command of the course subject matter and evinces a high level of originality and/or creativity that far surpasses course expectations.
A-	90-92	3.67	Excellent achievement. Student performance demonstrates thorough knowledge of the course subject matter and exceeds course expectations by completing all requirements in a superior manner.
B+	87-89	3.33	Very good work. Student performance demonstrates above-average comprehension of the course subject matter and exceeds course expectations on all tasks as defined in the course syllabus. There is notable insight and originality.
B	83-86	3.00	Satisfactory work. Student performance meets designated course expectations and demonstrates understanding of the course subject matter at an acceptable level.
B-	80-82	2.67	Marginal work. Student performance demonstrates incomplete understanding of course subject matter. There is limited perception and originality.
C+	77-79	2.33	Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course subject matter. There is severely limited or no perception or originality. Course will not count toward degree.

C	73-76	2.00	Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course subject matter. There is severely limited or no perception or originality. Course will not count toward degree.
P	73-100	0.00	Satisfactory work. Student performance demonstrated complete and adequate understanding of course subject matter. Course will count toward degree.
F	0-72	0.00	Unacceptable work/Failure. Student performance is unacceptably low level of knowledge and understanding of course subject matter. Course will not count toward degree. Student may continue in program only with permission of the Dean.
I		0.00	Incomplete is assigned when work is of passing quality but is incomplete for a pre-approved reason. Once an incomplete grade is assigned, it remains on student's permanent record until a grade is awarded.
W		0.00	Withdrew from the course with Dean's permission beyond the second week of the term.

- All courses will be recorded and maintained in the student's permanent academic record; only courses that apply towards the degree will appear on the academic transcript. Non-credit or audited courses will not appear on the transcript.
- 4 core courses taken for a letter grade (pass = B- or higher for a core course)
- 2 elective courses taken pass/fail (pass = A, B, C for an elective)

Because students are encouraged to take electives outside their area of expertise, a "C" letter grade is passing.

Course Summary

Date	Details
Mon Sep 1, 2025	Labor Day (No Class)
Tue Sep 2, 2025	Introduction to Writing I: Generalities, Science vs. Literature, One of the Tools of Communication
Thu Sep 4, 2025	Introduction to Writing I: Generalities, Science vs. Literature, One of the Tools of Communication
Tue Sep 9, 2025	Introduction to Writing II: Generalities, The Non-scientific Letters of Science, Time Management and Procrastination
Thu Sep 11, 2025	Introduction to Writing III: Generalities, The Letter of Support, The Submission Letter, The Collaboration Letter
Tue Sep 16, 2025	Writing for Non-scientific Audiences
Thu Sep 18, 2025	Reading and Editing
Tue Sep 23, 2025	Building a Manuscript I
Thu Sep 25, 2025	Building a Manuscript II
Tue Sep 30, 2025	Referencing Manuscripts
	#1: Letter of Recommendation
Thu Oct 2, 2025	Answering Reviews; Review of #1
Tue Oct 7, 2025	How to use AI for writing

Thu Oct 9, 2025	How to use AI for writing
	#2: rewriting your LOR
Tue Oct 14, 2025	Specific Aims page. Principles.
Thu Oct 16, 2025	Specific Aims page. Practice.
Tue Oct 21, 2025	Specific Aims page. Practice.
Thu Oct 23, 2025	Specific Aims page. Practice.
Tue Oct 28, 2025	Specific Aims page. Practice.
Thu Oct 30, 2025	Specific Aims page. Practice.
Tue Nov 4, 2025	#3: Review
Thu Nov 6, 2025	Original Research Proposal
Tue Nov 11, 2025	Original Research Proposal
Thu Nov 13, 2025	Original Research Proposal