CHEM 3550W: Scientific Oral and Written Communication, Fall 2025

Instructor: Dr. Jessica Jensen

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Regular meeting time: MWF 11:30am-12:20pm, Chemistry (Cedar St. Bldg. C) 271

Office Hours: By appointment through Calendly

Note that the course syllabus is a general plan for the course; deviations may be necessary. I will post any deviations to our eLC in an announcement.

Course Description

CHEM 3550W is a course that focuses on scientific communication: writing and oral presentations. You will receive hands-on training in presentation skills and practice writing scientific papers following ACS guidelines. Students will focus on keeping effective laboratory notebooks, writing lab reports, describing chemical and mathematical concepts in words, interpreting data, and communicating with graphs, tables, diagrams, and conclusions drawn from the analysis of data. All of this will be demonstrated by a semester-long project of writing a literature review.

Prerequisites: CHEM 2212

Materials

You will need computer access and a word processing program (like Word, available for free to UGA students). We will use EndNote in this class, which you can download free as a UGA student. Perusall is the website that you will use to access the readings for the course – it is free for students and can be accessed directly through eLC.

Course Objectives

- 1. Assemble results of experiments and integrate figures, tables, or graphs.
- 2. Demonstrate the ability to follow the conventions governing scientific communication, including correct, concrete, and concise writing and appropriate documentation styles.
- 3. Analyze scientific sources and identify and recommend appropriate sources of research information.
- 4. Apply proofreading skills to edit/improve writing.
- 5. Utilize widely-used citation managers and databases.
- 6. Critically analyze scientific writing and respond effectively to peers' work in progress and participate in collaborative learning activities.

7. Accept constructive criticism and use the revision process to improve the quality and clarity of draft documents.

Course Topics

- 1. Lab report basics
- 2. Reading the primary literature
- 3. Scholarly searches and citation managers
- 4. Planning and writing lab reports
- 5. Constructing scientific posters
- 6. Planning and writing literature reviews
- 7. Writing resumes/CVs/cover letters/personal statements
- 8. Grant writing
- 9. Planning and executing scientific oral presentations
- 10. How to give and take feedback
- 11. Critique of sample writing
- 12. Peer review of writing

Writing Intensive Course

CHEM 3550W is part of the Writing Intensive Program (WIP). These courses are meant to give students extensive experience writing in their discipline. Writing is an incredibly important skill for chemists – we use writing to convey new ideas in journal articles and conference posters and to get funding for our research through written proposals. To help you in developing your writing skills, a TA with special training in supporting writing from the WIP program has been assigned to our class. Sarah is available to both help with class assignments and to give writing feedback on outside of class writing like lab reports, personal statements, and presentations.

Career Readiness

One of the objectives in CHEM 3550W is to help you learn to communicate in professional settings. While we'll be devoting a couple of weeks of class to this, an entire course could be taught over professional communication. If you would like resources beyond the class, I highly recommend Career Services here at UGA! They have many resources, including resume and CV reviews, mock interviews, job and internship postings, and more. In addition to their other resources, they also offer the Arch Ready Professionalism Certificate. The certificate is designed to provide students with the essential skills necessary for professional success. To obtain the certificate, you must actively participate in five designated Arch Ready events offered by the Career Center within a single semester. Additionally, you are required to complete a brief survey after each presentation and a final Arch Ready survey. For a detailed schedule and more information about earning the certificate, please visit their website. It is important to note that event availability is limited, so prompt registration is encouraged.

Grading

Grade Categories and Weights

Pre-Class Assignments on Perusall: 10%

Any assigned reading will be due before class on Perusall. You will have to read and annotate in collaboration with your classmates. This will be automatically graded by Perusall; contact me if you ever have any issues. You can also check your current score before the due date (note: there's usually a few minute delay in updates after making new annotations or answering quiz questions). Your *two lowest scoring* Perusall assignments will be dropped from the calculation for this category at the end of the semester.

In-Class Participation and Assignments: 10%

We will do a variety of in-class assignments throughout the semester, including group discussions, peer review, and writing assignments. These will be graded based on participation – students must be visibly working on whatever activity we are doing that day. Being more than 15 minutes late and/or leaving more than 15 minutes early will result in no participation credit. All students will receive 3 excused class absences for the semester. These can be used in the case of illness, conflicting events, or any reason you may need to miss class. Make sure to use them judiciously as no more will be given. However, if you have major extenuating circumstances or DRC absence accommodations, please contact me immediately.

Practice Lab Report: 10%

You will write a practice lab report over a former or current chemistry lab in the style of an ACS journal article. This will give you practice with writing in the introduction, methods, abstract, discussion (IMRAD) format, which is also the format of journal articles in most sub-fields of chemistry. You will have a chance to write a draft that will be peer reviewed by your classmates before submitting your final report to be graded.

Poster: 10%

Posters are a very common way to share results in many scientific fields, including chemistry. You will put together a scientific poster over a lab or your undergraduate research. You will have a chance to write a draft that will be peer reviewed by your classmates before submitting your final poster to be graded.

Post-College Writing: 10%

To prepare you for common writing tasks in your post-college life, you will prepare either a resume or curriculum vitae (CV) and either a cover letter or personal statement. You will have a chance to write drafts of these that will be peer reviewed by your classmates before submitting your final product to be graded.

Literature Review Project: 30%

During this class, you will write a literature review over a topic of your choice using the primary literature. This will be a semester-long project involving several drafts and rounds of feedback. You will have a proposal, several rough drafts, and a final draft throughout the semester with peer and instructor feedback along the way. Any assignment that counts toward this category will have the clearly communicated in the assignment instructions.

Oral Presentation: 20%

Your final "exam" will be a 5-min presentation over your literature review, your research, or another topic approved by the instructor. These talks will be during the final exam slot and may be attended by

chemistry faculty and graduate students. You will have a chance to practice your talk at the end of the semester in-class before giving it to a wider audience. Make sure to check your final exam schedule during the first week of class for any conflicts that may result in 3 exams in a 24-hour period, as many of these will be during that slot, although we will also have to have talks on Dec. 1 and 2 to accommodate the number of students enrolled in the course.

Final Letter Grade

Your final letter grade will be assigned based upon the weights above and the grading scale below, with raw scores rounded to the tenths of a percent.

100-90.0%	A
89.9-88.0%	A-
87.9-85.0%	В-
84.9-80.0%	В
79.9-78.0%	В-
77.9-75.0%	C-
74.9-70.0%	С
69.9-65.0%	C-
64.9-50.0%	D
49.9% or lower	F

Late Work Policy

I know life happens, so sick days and dropped assignments have been included in the recurring grade categories to account for the inevitable things that come up. If you do find yourself falling behind, please reach out to me as soon as possible! For one-time writing assignments and the parts of larger projects, you must contact me in advance of the due date if you think you may be late (except in the case of emergency, then contact me as soon as possible). Extensions will be given at instructor's discretion and extensions will generally not be given for drafts that are due for peer review.

Communication

I will respond to all emails within one business day – this means I do not look at emails after hours or on weekends, and I don't expect you to look at them then either. I do expect students to check their email and eLC announcements once per business day. I may send schedule changes, class assignments, or other important information through email or eLC, so be sure to check regularly.

Academic Honesty

You may work with other students currently taking the class on all out of class work – this includes the Perusall assignments and projects – to talk about ideas, ask questions, or get feedback. However, all

words should be your own. Sources should always be cited in ACS format, and uncited sources will be treated as potential plagiarism. No one should write any portions of your assignment except you, and unauthorized help is considered a violation of UGA's academic honesty policy and will be reported as such. Use of generative AI tools (like ChatGPT) should be limited to help editing on the sentence level, use in initial brainstorming, or other use cases that are similar to how you would talk to another student about your writing. If it would be an academic honesty issue to have another person do something for you, you shouldn't have generative AI do it. Additionally, you may not reuse assignments from past classes unless directed to or cleared with the instructor beforehand.

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." A Culture of Honesty, the University's policy and procedures for handling cases of suspected dishonesty, can be found at www.uga.edu/ovpi. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to Dr. Jensen.

Disability Resources

If you plan to request accommodations for a disability, please register with the Disability Resource Center. They can be reached by visiting Clark Howell Hall, calling 706-542-8719 (voice) or 706-542-8778 (TTY), or by visiting http://drc.uga.edu.)

UGA Wellbeing Resources

UGA Well-being Resources promote student success by cultivating a culture that supports a more active, healthy, and engaged student community.

Anyone needing assistance is encouraged to contact Student Care & Outreach (SCO) in the Division of Student Affairs at 706-542-8479 or visit sco.uga.edu. Student Care & Outreach helps students navigate difficult circumstances by connecting them with the most appropriate resources or services. They also administer the Embark@UGA program which supports students experiencing, or who have experienced, homelessness, foster care, or housing insecurity.

UGA provides both clinical and non-clinical options to support student well-being and mental health, any time, any place. Whether on campus, or studying from home or abroad, UGA Well-being Resources are here to help.

- Well-being Resources: well-being.uga.edu
- Student Care and Outreach: sco.uga.edu
- University Health Center: healthcenter.uga.edu
- Counseling and Psychiatric Services: caps.uga.edu or CAPS 24/7 crisis support at 706-542-2273
- Health Promotion/ Fontaine Center: healthpromotion.uga.edu
- Accessibility & Testing: https://accessibility.uga.edu/

Additional information, including free digital well-being resources, can be accessed through the UGA app or by visiting https://well-being.uga.edu.

FERPA Notice

The Federal Family Educational Rights and Privacy Act (FERPA) grants students certain information privacy rights. See the registrar's explanation at reg.uga.edu/ general-information/ferpa/ FERPA allows disclosure of directory information (name, address, telephone, email, date of birth, place of birth, major, activities, degrees, awards, prior schools), unless requested in a written letter to the registrar.