

San José State University
Science/Chemistry
Chemistry 100W, Writing Workshop, Section 01, Fall 2022

Course and Contact Information

Instructor:	Dr. Gilles Muller
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Virtual Office Hours:	F, 9:00 am - 10:00 am (<i>other times by appointment</i>)
In-Person Office Hours:	W, 3:00 pm - 4:00 pm (<i>other times by appointment</i>)
Class Days/Time:	F, 10:00 am - 12:30 pm
Prerequisites:	GE Area: Z Prerequisite: A3 or equivalent second semester composition course (with a grade of C- or better); Completion of core GE, satisfaction of Writing Skills Test (WST) and upper division standing. CHEM 055 or CHEM 112A (with grades of "C" or better; "C-" not accepted). Allowed Declared Majors: Chemistry, Biochemistry. Note: This course must be passed with "C or better" to satisfy the CSU Graduation Writing Assessment requirement (GWAR).

Students must **provide proof** of having passed the Upper Division Writing Directed Self Placement (UDW-DSP) to fulfill the Writing Skills Test (WST) requirement (check Canvas for further details). Chem 100W is **not** an English class, but rather is a chemistry class in technical communication. Students are expected to have a proficient knowledge of English before entering Chem 100W. Students requiring remedial work in English will not be considered to be sufficiently prepared to satisfy the requirements in Chem 100W. This is **not** an English class, but rather is a chemistry class in technical communication.

Fall 2022 Paragraph for Syllabi on COVID-19 and Monkeypox

Students registered for a College of Science (CoS) class with an in-person component should view the [CoS COVID-19 and Monkeypox Training slides](#) for updated CoS, SJSU, county, state and federal information and guidelines, and more information can be found on the [SJSU Health Advisories](#) website. By working together to follow these safety practices, we can keep our college safer. Failure to follow safety practice(s) outlined in the training, the SJSU Health Advisories

website, or instructions from instructors, TAs or CoS Safety Staff may result in dismissal from CoS buildings, facilities or field sites. Updates will be implemented as changes occur (and posted to the same links).

eCampus Course Page

Course materials such as pdf articles, handouts, and updates to this syllabus may be obtained by logging into Canvas from the [MySJSU](http://my.sjsu.edu/) homepage at <http://my.sjsu.edu/>. You are responsible for regularly checking with the messaging system in Canvas to learn any updates or changes in the schedule.

Course Description

This course is a **workshop** and **not** a **lecture** designed to improve skills in scientific writing, speaking and data presentation. The emphasis will be to further develop technical writing and oral presentation skills within a chemistry context. Students will develop and improve these skills by writing a substantial review article on a scientific topic. In addition, an oral presentation and a poster presentation of the review topic will also be prepared. Since Chem 100W is not designed as a lecture class, these skills are to be developed by a series of writing and presentation assignments involving individual interaction such as editorial feedback and peer reviews.

Because this class is a project-driven workshop, your performance on your presentations and writing determine the majority of your grade. Much like learning a musical instrument, improving your skills as a writer and presenter is best done through iterations of practicing, performing, and receiving feedback (and repeat). With this in mind, I will create opportunities for you to share early iterations of your projects with me, and also with your classmates. These preliminary drafts of your work will be graded, as will the quality of the feedback you provide to your classmates. This is actually to your benefit, however, because you will gain valuable insights into how to improve your final versions, which are worth substantially more points! So steady progress on your projects is the name of the game, **do not wait until the last minute to complete your projects.**

Note the following key learning benchmarks:

1. Incorporate information and communicate effectively, via **reading/writing** and **orally**.
2. Cite and reference the relevant literature in the field.
3. Think critically and analyze complex and abstract ideas.

Course Goals and Learning Objectives

Program Learning Outcomes (PLO)

CHEM 100W will address the following [chemistry department program learning objectives \(https://www.sjsu.edu/chemistry/academic-programs/undergraduate-programs/undergraduate-plo.php\)](https://www.sjsu.edu/chemistry/academic-programs/undergraduate-programs/undergraduate-plo.php):

PLO #1.1 – Students will be able to identify, formulate, and solve a range of chemistry problems (fundamental to complex) through application of mathematical, scientific, and chemical principles.

PLO 1.2 - Students will be able to recognize, relate, and/or apply chemistry terms and concepts to propose and solve interdisciplinary and multidisciplinary real world problems.

PLO #2.1 – Students will be able to develop an experiment to address a hypothesis using literature and execute the planned experiment using standard chemistry techniques.

PLO #2.2 – Students will be able to acquire, record, and critically evaluate data through use of instrumentation and software, appropriate record keeping practices, figure preparation, and scrutiny of experimental results.

PLO #2.3 – Students will be able to recognize and assess laboratory hazards, practice risk minimization, and conduct safe laboratory practices.

PLO 3.1 - Students will be able to explore, critique, and reflect on how chemistry relates to society, culture, and issues of equity and ethics that shape their scientific beliefs and identities.

PLO 3.2 - Students will be able to identify as scientists within the scientific community through constructing peer reviews, engaging in collaborations, and participating in mentorship.

PLO 4.1 - Students will be able to design and deliver engaging presentations on diverse chemistry topics in a professional manner and with clear, concise organization that demonstrates mastery of the topic.

PLO #4.2 – Students will be able to integrate research findings into a concise original written report that either analyzes collected data and obtained results or reviews and reflects on published scientific work.

PLO #4.3 – Students will be able to identify an audience and construct a message tailored to that audience and act as a science ambassador by conveying the importance of the research or topic of study.

PLO 4.4 - Students will be able to prepare professional documents, such as résumés and cover letters, that accurately represent the students' skills and knowledge for graduate/professional school or potential future employers.

Course Learning Outcomes (CLO)

Upon successful completion of this course, students will be able to:

- 1) Effectively present a scientific paper in a poster session, as per at an American Chemical Society (ACS) symposium.
- 2) Effectively present a scientific paper orally, as per at an American Chemical Society (ACS) symposium.
- 3) Write a formal scientific laboratory report, using the format and style of an article in a peer-reviewed American Chemical Society (ACS) journal.

Texts/Readings

Textbook

No textbook is required for this course.

Supplementary Text(s) (not required, these may provide further clarification of various topics)

- *The ACS Style Guide: Effective Communication of Scientific Information*, Coghill, A. M. & Garson, L. R. Ed.; American Chemical Society: Washington, DC, 2006. ISBN: **9780841239999**
- *The ACS Style Guide. A Manual for Authors and Editors*; Dodd, J. S., Ed.; American Chemical Society: Washington, DC, 1997 (or 1986). ISBN: **0841209170**

Other Materials

- Class Notes: Handouts provided by Dr. Muller, including detailed assignment sheets.

Primary literature will be essential for the topic in this course. You should have a student library account with the King Library that allows you access the [library electronic databases](https://libguides.sjsu.edu/az.php) (<https://libguides.sjsu.edu/az.php>) such as [SciFinder](https://scifinder.cas.org/) (<https://scifinder.cas.org/>). There is also a special [CHEM 100W Library Research Help](https://libguides.sjsu.edu/chem100W) guide (<https://libguides.sjsu.edu/chem100W>) that is of interest. If you plan to access the library services from off-campus, you may need to obtain a password and/or proxy to do so. Check the Library website for information.

Library Liaison

The Chemistry Library Liaison is Anne Marie Engelsen (annemarie.engelsen@sjsu.edu)

GE Learning Outcomes (GELO)

1. This course must be passed with a C or better as a CSU graduation requirement.
2. Diversity: Issues of diversity shall be incorporated when addressing historical issues of physics and chemistry.
3. Writing: The minimum writing requirement is 8,000 words for this course. Writing assignments will include both in-class and out-of-class writing, with frequent feedback from the instructor and peer-review assignments throughout the semester. Your writing will be assessed for grammar, clarity, conciseness, and coherence. The major writing assignment will be a review paper. The Review Paper should be written consistent with the ACS Guidelines and must be a minimum length equivalent to 20 full, double-spaced pages with imbedded citations.

The last page of this syllabus lists all the assignments and the due dates. The major assignments, the word totals, and the relevant SLO being assessed are summarized in the section below: Course Requirements. The points totals and grade percentages for each assignment are summarized in the Grading Policy section. These assignments are designed to help you accomplished the learning outcomes.

Course Requirements

This is a three-unit, graded GWAR course, which requires a graded writing assignment that is individually developed and submitted by the student.

At the end of this syllabus, a summary table with list of all the assignments for the semester and their respective due dates can be found. All the assignments are designed to gradually build the necessary skills to write scientific papers that are well researched and appropriately referenced. Details for each assignment will be provided and discussed in recorded lecture posted on Canvas.

The goal of these assignments is to learn to locate relevant research papers, analyze and criticize the ideas presented, organize your findings into a review paper, and communicate your finding effectively via oral and poster presentations.

Breakdown of Chem 100W Assignments to Achieve the CLO:

- a) The main paper you will be writing for this course is an ACS style review paper (approximately 6,000 words not including references). You will write a review article covering a particular area of molecular science, one that involves the study of atoms and/or molecules. The area that you choose should be broad enough to have a number of references (with different authors, e.g., work done in several independent research laboratories), yet sufficiently narrow or specific so that you can effectively review this area of research in your paper. The purpose of a review article is to review the literature, so at least twenty references are to be cited, with at least fourteen research articles.

The submission and screening of the Review Paper submitted to Canvas is considered the Final Exam. The review paper will be 90 points, 30 % of total course grade. You will have an opportunity to peer review your classmates review paper and receive feedback.

- b) Other major projects include: writing an abstract for an oral presentation (approximately 300 words), designing a cover letter (1,000 words) for applying to a current science job posting, composing an effective resume (approximately 700 words), and writing an introduction for a poster presentation (approximately 300 words).
- c) In addition to the writing assignments, you will have an oral presentation and a poster presentation in this class. You will teach your classmates and the department about your topic while building effective communication skills.

You will receive instructor feedback for all the assignments with an opportunity to resubmit for additional comments, but no grade will be changed.

Grading Policy and Criteria

Short Oral Presentation	45 points (15% of total course grade)
Poster Presentation	45 points (15% of total course grade)
Review Paper	90 points (30% of total course grade)
<u>Writing assignments and peer reviews</u>	<u>120 points (40% of total course grade)</u>
Total	300 points

Letter grades will follow a traditional curve, the top 3% earning a plus grade and the bottom 3% earning a minus grade within each decade: 97.0-100% (A+), 92.0-96.9% (A), 89.0-91.9% (A-), 85.0-88.9% (B+), 80.0-84.9% (B), 77.0-79.9% (B-), 72.0-76.9% (C+), 65.0-71.9% (C), 61.0-64.9% (C-), 57.0-60.9% (D+), 54.0-56.9% (D), 50.0-52.9% (D-), below 50% (F). The instructor

reserves the right to lower the grading curve at the end of the semester if he deems it to be appropriate.

Your grades for all the assignments will be posted on Canvas. You have only 9 days from the day a grade is posted to ask for a regrade. I will not do regrades after nine days have passed.

*Please note no late submission will be accepted. Being **on time and participation are critical** and students are **responsible for material missed in any lectures or discussions**. Late assignments **are not to be accepted** without good cause (e.g., medical and family issues), requiring documentation, or involve unforeseen class issues (e.g., instructor sick day).

Plagiarism and any other cheating will not be tolerated, leading to a minimum penalty of an F for the particular assignment and, given the proper circumstances, an F or equivalent for the entire course. See SJSU plagiarism policy, interactive tutorial and the relevant quiz (<https://libguides.sjsu.edu/plagiarism>).

Incompletes: An incomplete will only be given under the following circumstances: (1) you have completed at least two-thirds of the course work with a grade of C or better, and/or (2) the reason that you cannot complete the course is due to an extreme emergency with appropriate documentation.

Students who wish to receive an incomplete and have not fulfilled the above requirements will receive a grade appropriate to their totals. If you decide to quit the class without taking the final exam, you will receive a WU grade, equivalent to an F with the option to repeat the class. Consult with your advisor and/or refer to SJSU Course Catalog for specific details.

Classroom Protocol

Because this class is a workshop, synchronous virtual class attendance and participation are essential as well as asynchronous online learning sessions. You should plan each week to devote your time for the entire 150-minute workshop time period (once per week), to maximize use of the synchronous/asynchronous virtual workshop time period, to work on your assignments. As college students, you are adult learners, so it is your responsibility to make sure that you are contributing to your success and, when it comes to providing constructive feedback, the success of your classmates. Any assignment not completed or turned in will result in a zero grade. If the student misses synchronous virtual class it is their responsibility to obtain notes, handouts and other materials or communications provided in class. A tentative course outline is found at the end of this syllabus. All synchronous virtual class participants are expected to interact in a professional manner in all matters pertaining to this course.

We hope that the synchronous/asynchronous virtual class will serve as an environment that will promote learning and the development of new ideas, as well as be a safe and respectful community. Behavior that interferes with the normal academic function in a synchronous virtual class is unacceptable. Students exhibiting this behavior will be asked to leave the virtual class and will not be given the opportunity to make up the time. The university has a [brochure on student conduct](https://www.sjsu.edu/studentconduct/docs/SJSU-SCED-Brochure-English.pdf) that you can view at <https://www.sjsu.edu/studentconduct/docs/SJSU-SCED-Brochure-English.pdf>. Examples of such behavior include:

- a) Persistent interruptions or using disrespectful adjectives in response to the comments of others.
- b) The use of obscene or profane language.
- c) Persistent and disruptive late arrival to or early departure from virtual class without permission.
- d) Physical threats, harassing behavior, or personal insults (even when stated in a joking manner).
- e) *Other inappropriate behavior e.g. yelling directed at classmates and/or faculty.*
- f) Use of personal electronic devices such as pagers, cell phones, PDAs in virtual class, unless it is part of the instructional activity.

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

Attendance Policy

Beyond the initial day of class, roll will not be taken. However, attendance of the synchronous virtual sessions/periods is mandatory. If you miss a synchronous virtual session/period, you are still responsible for all the material discussed in lecture (some of which may not be in the text). Note we will cover a significant amount of material during each class meeting. If you miss class meetings, it will be difficult to catch up due to the volume. A tentative course outline is found at the end of this syllabus.

Be on time to synchronous virtual class period and stay the entire time scheduled for it (typically starting at 10:00 am, except when stated differently, and ending before or by 12:30 pm) as a courtesy to the instructor and your colleagues. Cell phones and other devices should be turned off for class, unless they are being used to take notes. Please engage with the instructor and your colleagues as this way you will gain the most from it.

Email Policy

I receive a lot of emails, so to be sure that I see your email, all Chem 100W emails should have [Chem 100W] in the subject line. I will do my best to respond to class-related emails within 1 business day of receiving them, however, keep in mind that this may not always be possible, especially during high volume times (around exams). Office hours are the best way to get timely answers to more complicated questions.

University Policies (Required)

Per [University Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf) (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), relevant information to all courses, such as academic integrity, accommodations, dropping and adding, consent for recording of class, etc. is available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](#) at <http://www.sjsu.edu/gup/syllabusinfo/>.

Tentative Course Schedule, Chem 100W, Section 01 (check Canvas for updates and pdf files)

Week	Date	Topics, Readings, Assignments, Deadlines
1	Aug 19	First Day of Course – Synchronous Introduction Period (<u>starting at 10:00 am</u>) Synchronous SJSU Career Center Session – Judith Garcia (<u>from 11:00 am to 12:15 pm</u>) Asynchronous Recorded Lecture: Plagiarism Discussion and Online Tutorial <i>plagiarism tutorial completion due before or by 11:59 pm on Aug 25*</i> <i>prerequisite course documentation due before or by 11:59 pm on Aug 25**</i>
2	Aug 26	Synchronous SJSU Library Resources Session – Anne Marie Engelsen (<u>from 10:00 am to 11:15 am</u>) Synchronous LinkedIn Session – Judith Garcia (<u>from 11:15 am to 12:30 pm</u>) Asynchronous Recorded Lecture: Abstract/References, Discussion of Research and Review Papers <i>abstract analysis with reference part #1 (two references for the review paper) due before or by 11:59 pm on Sept 1*</i>
3	Sept 2	Asynchronous Writing Workshop: Resume/CV <i>Resume/CV due before or by 11:59 pm on Sept 8*</i>
4	Sept 9	Asynchronous Recorded Lecture: References Asynchronous Writing Workshop: Cover Letter <i>cover letter due before or by 11:59 pm on Sept 15*</i>
5	Sept 16	Asynchronous Recorded Lecture: Introduction and Outline Asynchronous Writing Workshop: Chem Draw <i>outline of review paper topic and reference part #2 (five references and five paragraphs) due before or by 11:59 pm on Sept 22*</i>
6	Sept 23	Asynchronous Recorded Lecture: Oral Presentation/Word Document Asynchronous Writing Workshop: Oral Presentation Abstract <i>short oral presentation outline and abstract due before or by 11:59 pm on Sept 29*</i>
7	Sept 30	Asynchronous Writing Workshop: Organizing Oral Presentations <i>short oral presentation PowerPoint document due before or by 11:59 pm on Oct 6*</i>
8	Oct 7	Synchronous Short Oral Presentation Session #1 (<u>from 10:00 am to 12:30 pm</u>) <i>short oral presentation peer assignment – day 1</i> <i>short oral presentation peer assignment due before or by 11:59 pm on Oct 20*</i>
9	Oct 14	Synchronous Short Oral Presentation Session #2 (<u>from 10:00 am to 12:30 pm</u>) <i>short oral presentation peer assignment – day 2</i> <i>short oral presentation peer assignment due before or by 11:59 pm on Oct 20*</i>
10	Oct 21	Asynchronous Recorded Lecture: Poster Presentation Synchronous Consultation and Oral Presentation Feedback (<u>from 10:00 am to 12:30 pm</u>) <i>reference part #3 (ten references embedded in your research topic outline) due before or by 11:59 pm on Oct 27*</i>
11	Oct 28	Asynchronous Writing Workshop: Poster Presentation <i>draft of poster due before or by 11:59 pm on Nov 3*</i>

Week	Date	Topics, Readings, Assignments, Deadlines
12	Nov 4	Asynchronous Recorded Lecture: Tables and Figures Asynchronous Writing Workshop: Draft of Poster Peer Assessment and First Draft Review Paper Peer Assessment (<u>between 10:00 am and 12:30 pm</u>) <i>draft of poster peer assessment due before or by 12:30 pm on Nov 4*</i> <i>first draft of review paper due before or by 11:59 pm on Nov 10*</i> <i>first draft review paper peer assessment due before or by 11:59 pm on Nov 17*</i>
13	Nov 11	Veterans Day – No Class Held
14	Nov 18	Synchronous Virtual Poster Session (<u>from 10:00 am to 12:30 pm</u>) <i>Poster PowerPoint document due before or by 11:59 pm on Nov 17*</i> <i>Poster presentation peer assessment due before or by 11:59 pm on Nov 22*</i>
15	Nov 25	Thanksgiving Break – No Class Held
16	Dec 2	Last Week of Class - Synchronous Consultation, Poster Feedback, and Second Draft Review Paper Peer Assessment (<u>from 10:00 am to 12:30 pm</u>) <i>second draft of review paper due before or by 11:59 pm on Dec 1*</i> <i>second draft review paper peer assessment due before or by 12:30 pm on Dec 2*</i>
Final	Dec 8	Review Paper in lieu of Final Exam due on Dec 8 by 7:15 am*

* Assignment files are always due before or by the given time on the date stated (loaded on Canvas)