

Syllabus for: CHEM160 – CRN# 80249 – SCC Fall 2023

Welcome to chemistry! This will be difficult and require a lot of time and effort but I'm here to help along the way. If you made it this far, you do belong here and I'm excited for the opportunity to be your professor and looking forward to meeting and working with all of you. Let's have a great semester!

1. Quick Info:

- Lecture – meets in Fairfield room 2703 from 9:00 – 10:15 am Tue/Thu starting, Tue, Aug 15
- Lab - meets in Fairfield room 2739 from 10:30 am - 1:20 pm Tue starting Thu, Aug 15
- Student Help Hours (see <https://www.comstgermain.com/courses/>):
 - Fairfield:
 - Tue/Thu – 8:30-9:00 am room 2703
 - Tue – 1:50-3:00 pm in ASTC
 - Vallejo:
 - Mon/Wed – 8:30-9:00 am room 242
 - Wed – 1:20-2:30 pm room 242
 - Online using Discord (various times) and by Zoom by appointment
- Personal questions/issues: email me at comodore.st.germain@solano.edu or text/call at (707) 386-9588
- Class questions should be posted on the same Discord: <https://discord.gg/pQqxxHgYF5>
- We will need the class materials on the first day of class (see below)
- We are required to follow specific SCC COVID requirements here: <https://welcome.solano.edu/coronavirus/>.
- This syllabus is only a guideline and adjustments may be made as needed throughout the semester.

2. How the class will be run:

In general, this standard grading scheme will be used to determine the final grade: 90.00-100% A; 80.00-89.99% B; 70.00-79.99% C; 60.00-69.99% D (not passing); 59.99 % or less F (not passing). I do not round and I do not give out free points because you are expected to earn your grade.

- Lecture is ~1 hour and 15 minutes long and will be a combination of traditional lectures and in-class activities. Here we will discuss concepts, work through practice problems, and have question and answer sessions. You are also encouraged to ask questions about things that you don't understand. You are expected to attend lectures and actively participate in class discussions and activities. I will attempt to record lectures and post links on Canvas but the lecture recordings are not guaranteed. If you miss something it is up to you to make up what you missed.
- Lab is ~3 hours will consist of in-class lab activities, wet experiments, computer simulations, worksheets, and/or group activities. Labs are mandatory and if you miss more than 1 lab, you can be dropped from the class or have your grade lowered. Arriving 10 minutes past the lab start time or leaving 10 minutes before the class end time counts as being late. Two times being late counts as one absence.

Grading:

| Grading Scheme | |
|-------------------|------------------------|
| Grading / Exams | Percent of Final Grade |
| 4 Exams | 40% |
| Final | 20% |
| Lab Activities | 20% |
| Quizzes | 10% |
| Worksheets | 8% |
| Other Assignments | 2% |

Homework/Assignments:

We will cover ~1 topic every 1-2 weeks. There will be worksheets, assignments, and other optionally assigned problems.

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Lab Activities:

Labs will be mostly from the online lab manual (see Class Materials) but there will be other provided lab activities. Lab grades will be from the successful completion of in-class lab activities, using safe lab practices, and accuracy of lab results

Quizzes:

There will be 4 take-home quizzes throughout the semester (25 points each). These quizzes can be taken together with other students. All work must be shown. This is due the 1-2 days before the midterms and may need to be submitted online as one document. The questions will be provided at least 2 weeks before the midterm so you have 2 weeks to work on it. There may also be 2 in-class quizzes that are timed (5 points each). I will give you advanced notice if we are having these 2 in-class quizzes.

Exams:

There will be 1 exam for each section (100 points each). These multiple choice exams will be taken during normal lecture/lab time unless you have arranged additional time through ASC. You are required to show all of your work and your work must be submitted at the end of the exam. Most of the exam questions are very similar to in-class questions, worksheets, take-home quiz questions, or other assignments. Tests are open note/book but you will not have enough time to complete the test if you do not readily know the material. There are no make-up exams. If you miss an exam AND you have a confirmed medical excuse, your missed exam grade can be determined by your next exam grade. This replacement policy applies only to missing one exam.

Final:

There will be 1 cumulative final that covers sections #1-4 in the same format as the midterms but may be slightly different and longer.

3. Class Materials:

- Device(s) and connection that can access and/or upload documents to Canvas, Discord, LibreTexts, and Top Hat.
- 5 x scantron forms – 882-E compatible
- Calculator – non phone
- Safety goggles
- Safety gloves
- Lab Manual (TopHat) – (online, \$22) – you will register through our Canvas page for the 14 day free trial and either pay with a credit card or use a redemption code from the SCC Bookstore to have continued access.
- Text Book (online, free) – [LibreTexts.Org](https://libretexts.org/) – [Introductory Chemistry at Solano College](https://libretexts.org/)
- Text Book (optional) – Introduction to Chemical Principles, Stoker, 11th edition, Pearson, 2014
- Lab coat (optional)

4. Who I am:

My name is Commodore St. Germain (he/him). I did the bay area community college circuit as a student (NVC, SCC, DVC, Chabot, Merritt), earned my BS biochemistry/BA chemistry from SFSU 2014, and my PhD in Biochemistry, Molecular, Cellular, and Developmental Biology from UC Davis in 2020. I've been teaching since 2019 (chemistry, biology, and biotechnology). I spend a lot of my time: with my family/friends/dogs, exercising, watching true crime shows/anime, and talking (dreaming) about food. See more at <https://www.comstgermain.com>.

5. Course Description:

The fundamental principles of inorganic chemistry. Field trips may be required. Online work may be required. 4 unit course. NOTE: Not open to students who have completed CHEM 001, CHEM 010, or equivalent. General Education: SCC Area C. Non-transferable to UC or CSU. Hours: 48-54 lecture, 48-54 lab.

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6. Resources:

- If you are having problems, please email me or come to my office hours as soon as possible.
- Admissions and Records important dates: <https://welcome.solano.edu/ar-dates/>
- Distance Education Resources: http://www.solano.edu/online_classes/
- Canvas Help Desk: Click on the "Help?" question mark in the lower left corner of your Canvas screen for current help desk hours, phone numbers, and Canvas tutorials. (Links to an external site: <https://community.canvaslms.com/t5/Student-Guide/tkb-p/student>) is a great resource for how-to information and tutorials.
- Student Services: http://www.solano.edu/online_student_services/
- Library: <https://libguides.solano.edu/libraryresources>
- Financial Aid: http://www.solano.edu/financial_aid/
- Discrimination and Sexual Harassment: http://www.solano.edu/student_service/grievances.php
- Tutoring: If you want tutoring and/or suspect you will need tutoring contact Solano College Academic Success and Tutoring Center as soon as possible - http://www.solano.edu/academic_success_center/. Sign up here: <https://solano.instructure.com/enroll/EKEA7Y>
- If you have a disability or think you have a disability please contact Solano College Accessibility Services Program as soon as possible so they can help you acquire resources - <https://welcome.solano.edu/asc/>

7. Plagiarism/Cheating:

From the SCC Student Handbook:

"An instructor who determines that a student has cheated or plagiarized has the right to give a failing (i.e. "F") grade, or numerical equivalent, for the assignment or examination. Instances of alleged plagiarism or any other form of academic dishonesty may be referred to the Chief Student Services Officer for action in accordance with the established disciplinary procedures as set forth in Solano Community College Board Policy, §5300. Following procedures consonant with due process, a student may be expelled, suspended, or given a lesser sanction if he or she is found to have committed an act of academic dishonesty. The totality of the particular circumstances, the student involved, and any relevant mitigating factors shall be considered in every case."

8. Attendance and Participation:

From the SCC Student Handbook:

"Students must attend the first meeting of their classes to assure verification of their enrollments. Students failing to appear may be dropped from class rolls [Board Policy 5020]. Regular attendance and participation is required of all students enrolled in courses and laboratories at Solano College. This includes regular attendance, completion of examinations, assignments, participation in class activities and discussions. Instructors shall provide students with written statements describing course requirements, grading standards and course prerequisites. Regular attendance is an obligation assumed by every student at the time of registration. Absences per semester should not exceed the number of hours or the number of days that a class meets per week. Absences in excess of the maximum may result in students being dropped from classes or having their grades lowered."

9. Sick Policy:

If you are sick, stay home! Let me know as soon as possible and we will find you alternative assignments for the time that you are sick. Follow SCC guidelines found here: <https://welcome.solano.edu/coronavirus/>.

10. Workload:

Be prepared for about 12 hours of work per week in this course to pass. Additional effort may be needed to get higher than average grades. A three unit "lecture" course, by virtue of what is known as the Carnegie Unit, mathematically

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establishes a standard the amount of work expected from a student (and the instructor) in a 18-week course. California state law upholds this, see California Code of Regulations, Education Code, Title 5, Section 55002.5.

11. Student Learning Outcomes:

As a result of successful completion of this course, a student will be able to:

- Draw the Lewis structure of a molecular compounds and polyatomic ions.
- Identify and name the course-required list of elements, ions, molecular compounds, ionic compounds, etc.
- Show proficiency in lab techniques (measurements, titration, etc.)

Additional information can be found at <https://solano.elumenapp.com/public/> -> Chemistry -> Your Class.

12. Schedule:

This is the tentative schedule and may (probably will) change. The most up-to-date schedule will be on Canvas:

| Day/Date | Wk | Lecture (chapter) (9:00 - 10: 15 am, FF 2703), 32 meetings | Lab (Tue 10:30 am - 1:20 pm, FF 2739), 16 meetings [CRN# 80249] |
|-------------------|----|--|---|
| Tue, Aug 15, 2023 | 1 | Chapter 1, 2 - Start Worksheet 1, Quiz 1 | safety (rules, video, and quiz, check-in, computer orientation) |
| Thu, Aug 17, 2023 | 1 | Chapter 2 - Start Worksheet 2 | |
| Tue, Aug 22, 2023 | 2 | Chapter 3 | Exp 1: Density and Miscibility |
| Thu, Aug 24, 2023 | 2 | Chapter 3 | |
| Tue, Aug 29, 2023 | 3 | Chapter 4 - Start Worksheet 3 | Exp 2: Density of Liquids and Solids |
| Thu, Aug 31, 2023 | 3 | Chapter 4 | |
| Tue, Sep 5, 2023 | 4 | Chapter 5 | review, worksheets |
| Thu, Sep 7, 2023 | 4 | Exam 01 (on chapters 1, 2, 3, 4; quiz 1; worksheets 1, 2, 3) | |
| Tue, Sep 12, 2023 | 5 | Chapter 5 - Start Worksheet 5, Quiz 2 | Exp 3: Flame Test (comp) |
| Thu, Sep 14, 2023 | 5 | Chapter 6 - Start Worksheet 4 | |
| Tue, Sep 19, 2023 | 6 | Chapter 6 | Exp 4: Empirical Formula |
| Thu, Sep 21, 2023 | 6 | Chapter 7 - Start Worksheet 7 and 6 | |

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| Tue, Sep 26, 2023 | 7 | Chapter 7 | review, worksheets |
| Thu, Sep 28, 2023 | 7 | Review | |
| Tue, Oct 3, 2023 | 8 | Exam 02 (on chapters 5, 6, 7; quiz 2; worksheets 5, 4, 7, 6) | Exp 5: Chemical Reactions |
| Thu, Oct 5, 2023 | 8 | Chapter 8 - Start Worksheet 8, Quiz 3 | |
| Tue, Oct 10, 2023 | 9 | No Class | No Class |
| Thu, Oct 12, 2023 | 9 | Chapter 8 | |
| Tue, Oct 17, 2023 | 10 | Chapter 9 - Start Worksheet 9 | Exp 6: Single Displacement Reactions and Activity Series |
| Thu, Oct 19, 2023 | 10 | Chapter 9 | |
| Tue, Oct 24, 2023 | 11 | Chapter 10 - Start Worksheet 12, 11, 13 | Exp 7: Double Replacement Reactions |
| Thu, Oct 26, 2023 | 11 | Chapter 10 | |
| Tue, Oct 31, 2023 | 12 | review | review, worksheets |
| Thu, Nov 2, 2023 | 12 | Exam 03 (on chapters 8, 9, 10; quiz 3; worksheets 8, 9, 12, 11, 13) | |
| Tue, Nov 7, 2023 | 13 | Chapter 11 - Start Worksheet 10, Quiz 4 (not collected) | Exp 8: Conductivity (comp) |
| Thu, Nov 9, 2023 | 13 | Chapter 11 | |
| Tue, Nov 14, 2023 | 14 | Chapter 13 - Start Worksheets 16, 15 | Exp 9: Acid Base Titration |
| Thu, Nov 16, 2023 | 14 | Chapter 13 | |
| Tue, Nov 21, 2023 | 15 | Chapter 14 - Start Worksheets 14 | Exp 10: Solutions |
| Thu, Nov 23, 2023 | 15 | No Class | |
| Tue, Nov 28, 2023 | 16 | Chapter 14 | review, worksheets |
| Thu, Nov 30, 2023 | 16 | review | |
| Tue, Dec 5, 2023 | 17 | Exam 04 (on chapters 11, 13, 14; quiz 4; worksheets 10, 16, 15, 14) | early chapter reviews |

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|-------------------|----|---------------------|----------|
| Thu, Dec 7, 2023 | 17 | review | |
| Tue, Dec 12, 2023 | 18 | no class | no class |
| Thu, Dec 14, 2023 | 18 | Final 8:00-10:00 am | no class |