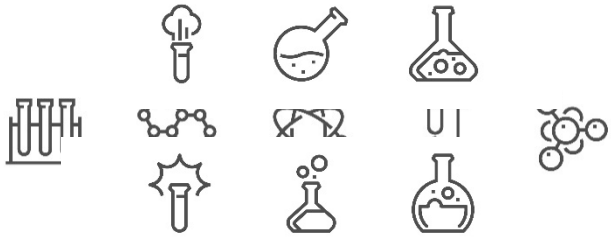
WELCOME TO CHEM 201 @ SDSU!



Your instructors and the SDSU Chemistry faculty enthusiastically welcome you to this course. Please take the time to closely read this syllabus. The answers to your questions can be found here!

Are you ready to take Chem 201 over the summer??	
	ASSUME THIS CLASS WILL REQUIRE A MINIMUM OF 40+ HOURS OF YOUR TIME PER WEEK TO COMPLETE. The prerequisites for CHEM 201 a passing grade (a C or higher) in Chem 200. Chemistry 201 is a demanding, 5-unit course which requires an enormous amount of time and your commitment to work hard! (Please do NOT take this course unless you are prepared to commit the necessary time and hard work.) It is advisable that you make Chemistry 201 the focus of your semester and that you do NOT overburden yourself with an unmanageable course load while taking this course. YOUR success is our success. and we want you to succeed in this course. YOUR success requires a large time commitment and hard work — please do NOT take this course unless you are willing to allow sufficient time to study, time to watch the lecture videos, participate on the discussion board, and attend ALL labs and discussion sessions with preparation in advance. Writing good laboratory reports also requires a lot of time and preparation prior to lab. You will enjoy your semester in Chemistry 201 — and you will benefit in the sciences so much more from all that you learn — if you allow yourself the time necessary to work hard and succeed. PLEASE ALLOW ADEQUATE TIME IF YOU TAKE THIS COURSE!
This syllabus and schedule are subject to change at the instructor's discretion.	

Break Down of Hours for this Course (1 units = 2 — 3 outside hours)					
	Number of Units	**Hours Spent Per Unit in Class**	**Hours Spent per Unit after Class**	**Summer Speed**	**Total Hours a Week**
Lecture	3	1	6	X 2.5	22.5
Lab	1	3	2	X 2.5	12.5
Discussion	1	1	2	X 2.5	7.5
	Total Amount of Hours (at minimum) Per Week for the Course:				**42.5**

	General Information
PROFESSOR	Megan Bowles, MA
OFFICE	GMCS 213-A
OFFICE HOURS	Tuesday Wednesday 12:30 pm - 2:30 pm ALWAYS on Zoom, sometimes in-person Or by appointment
OFFICE HOURS ZOOM LINK	
LECTURE	Pre-Recorded
LAB	IN-PERSON, attendance required
DISCUSSION	LIVE ZOOM SESSION, attendance required
	Contact Information
INSTRUCTOR EMAIL	To ensure a timely response, send all emails to chem200@sdsu.edu. This is the inbox that gets checked regularly.
CONTACT PROCEDURE	DO NOT MESSAGE INSTRUCTORS OVER CANVAS. YOU WILL NOT RECEIVE A RESPONSE. ALL COURSE COMUNITACTION WILL BE VIA YOUR SDSU EMAIL ADDRESS. Students are provided with an SDSU Gmail account, and this SDSU email address **will be used for all communications.** Per University Senate policy, students are responsible for checking their official university email once per day during the academic term. Instructors and TA's are not at liberty to respond to messages sent from external emails. For more information, please see Student Official Email Address Use Policy. Students will be identified according to their LAB SECTION NUMBER. This is how you are organized on Canvas and how your TA's and Instructors will find you. ALWAYS INCLUDE YOUR LAB SECTION NUMBER AND COURSE NUMBER IN THE SUBJECT LINE OF YOUR EMAIL. THERE ARE DIFFERENT LAB SECTIONS, LECTURE SECTIONS, DISCUSSION SECTIONS ETC. AND WE WILL NOT BE ABLE TO ANSWER YOUR QUESTIONS UNTIL WE HAVE THAT INFORMATION TO FIND YOU.
TA CONTACT	Your TA will inform you of the best way to contact them. Make sure to note their email address! You can also use their name to search for their email in the SDSU directory.
CONTACT HOURS	Your instructors work regular business hours. Messages sent M-Th will receive a response within the day. Messages sent on Friday, or the weekend may not receive

	a response until the following business day. Be sure to work on your assignments early in the week so that your TAs and instructors are available to help you.
Waitlist Information	
	If you are attempting to waitlist CHEM 201, you should attend every possible lab section, discussion, and lecture that will fit into your schedule. And keep track of which discussion and lab you attended. Remember, you are 100% responsible for all assignments that are due and to keep up with the work. ***Waitlist students who are attempting to register for the course should email: chem200@sdsu.edu with their name and RedID info ASAP.***
Required Materials	
TEXTBOOK	*Openstax Chemistry Book 2e: https://openstax.org/details/books/chemistry-2e* Free to download PDF via OpenStax Website. A hardcopy will be available in the bookstore for those who want to use a bound copy.
LAPTOP/DEVICE	The majority of assignments for this course will be submitted online. It is your responsibility to ensure that you have a device that is able to access all the required materials as well as a reliable internet connection. SDSU has devices available for students to borrow. If you have any personal technology issues, the Library Computing Hub provides technical support for students.
SCIENTIFIC CALCULATOR	Needs to be scientific, but non-graphing and non-programmable. **Your Cell Phone is not a substitute for a calculator!** You will not be able to use your phone in the laboratory.
COMPOSITION NOTEBOOK (recommended)	We highly recommend everyone buys a composition book in order to work on the problem sets, keep good notes and make your studying more efficient.
LAB MATERIALS	Safety Glasses, a Lab Coat or Apron 50 page carbon copy Lab Notebook (Provided!!) Lab Manual (Digitial – in LabFlow)
Attendance Policy	
LECTURE	Lecture Videos are pre-recorded and posted on Canvas. You may watch the lecture videos at any time. Each video will have an accompanying quiz.
LAB	Labs will be in person. Attendance is mandatory. You must attend the lab section in which you are enrolled. If you miss more than 3 of the 10 lab sessions you will receive a failing grade in this course. Your first missed lab will be dropped automatically. If you are going to miss more than one lab session, contact chem200@sdsu.edu immediately.
DISCUSSION	Discussion sessions will be held live online over Zoom. Attendance is mandatory and you are required to stay for the duration of the 2 hours and 40 minutes. Attendance will be taken at the beginning AND end of the discussion sessions. You will not be able to make up a missed discussion. Discussions are participation based, so you must be there to participate in order to receive credit. If you miss more than 2 of the 5 discussion meetings you will receive a failing grade in this course. Your first

	missed discussion will be dropped automatically. If you are going to miss more than one discussion session, contact chem200@sdsu.edu immediately.
	General Learning Outcomes
	The main goal of CHEM 201 is to complete the general introduction to Chemistry begun in CHEM 200 in order to prepare you for more advanced courses in science. More specific goals are to: • Make sure you are completely comfortable with basic chemical "arithmetic," that is, calculations involving molecular weight, grams to moles, moles to arms, molarity, delusions, reaction stoichiometry, and so on. • Make sure you are completely comfortable with drawing and looking at Lewis structures of chemical compounds. To start to get you thinking of molecules as 3-D objects and not just a collection of letter and numbers in molecular formula. • Make sure you know the names, formulas, charges, and structures of the common ions and the common strong acids and bases. • To learn to identify and understand what is happening in three fundamental types of chemical reactions: (i) acid-base reactions (ii) ion dissolution and precipitation and reactions, and (iii) oxidation/reduction reactions. • To learn that there are two aspects to all chemical reactions — thermodynamics and kinetics, that thermodynamics determines the final result or equilibrium state of a chemical reaction, and that kinetics determines how long it will take to reach the equilibrium state. • More specifically, with regard to thermodynamics, to learn how we characterize the equilibrium state using the equilibrium constant expression and equilibrium constant (K), how you can use knowledge of K along with other information (starting concentrations and stoichiometry) to calculate the final concentrations in a reaction, and how you can experimentally determine values of K by measuring the final concentrations. You should also learn that ultimately the value of K is determined by the thermodynamic properties (enthalpy, entropy, and free energy) of the reactants and product in a chemical reaction and how you can use knowledge of these values to calculate K's. • With regard to kinetics, you should learn how we characterize the kinetics or speeds of chemical reactions with the rate law and rate constant (k), how we have to determine both of these quantities by experiment, and what types of experiments can be done to do this. You should also learn that the kinetics are determined by the

	exact path or mechanism that converts reactants to products, and how knowledge of the rate laws is very useful in determining what are likely mechanisms for a reaction.

Schedule

	Date	Text Chapters	Monday Lab	Tuesday Quiz	Wednesday Discussion	Thursday Lab
Week 1	07/07	Chapter 13: Fundamental Equilibrium Concepts Chapter 14.1-14.3: Acid and Bases pt.1	NO LAB MEETING	None	Discussion 1: Equilibrium pt. 1	Lab Safety Review Writing a Pre-Lab and Keeping a Lab Notebook Review LabFlow Registration
Week 2	07/14	Chapter 14.4-14.7 Acids and Bases pt. 2 Chapter 15: Other classes of Equilibria	Experiment 1: Spectrophotometer and Beer's Law	Chapter 13 Chapter 14.1-14.4	Discussion 2: Equilibrium pt. 2	Experiment 3: Ka and Kb
Week 3	07/21	Chapter 16: Thermodynamics	Experiment 4: Titration Curves		Discussion 3: Thermodynamics	Experiment 5: Formation Constants
Week 4	07/28	Chapter 17: Electrochemistry	Magnesium Uknowns	Chapter 16	Discussion 4: Electrochemistry	Experiment 6: Electrochemical Cells
Week 5	08/04	Chapter 12: Kinetics	Experiment 7: Kinetics	Chapter 17	Discussion 5: Kinetics	General Unknown
Week 6	08/11	Chapter 21: Nuclear Chemistry	General Unknown	Chapter 12 Chapter 21	Discussion 6: Nuclear Chemistry and Final Review	Final Exam (In-Person during your Lab Period)

Tuesday Quizzes will be available from 8am to 8pm on TopHat.
If you are unable to take an Exam or Quiz within the indicated exam window, you must contact chem200@sdsu.edu immediately to make arrangements for a make up exam. Requests sent after the exam window has begun will not be accommodated.

Online Resources

CANVAS	Canvas will be used in this course. Enrollment in Canvas is automatic if you are currently enrolled in this course. Canvas will contain all of the course information and assignments. Canvas will also be used for course communication so you should check Canvas regularly to keep up to date on important announcements. All assignments for this course will be turned in on Canvas. Your instructors and TA's are available to answer any questions about Canvas, but it is ultimately your

	responsibility to troubleshoot any technical issues. Late assignments will not be accepted, including those that were not successfully submitted due to technical difficulties. Make sure to check your submissions after you upload to ensure that your TA is able to see your work for grading
TOPHAT	TopHat will contain most of the course material including lecture videos and discussion activities. You will also be taking exams on TopHat d. Top Hat will be used to record your attendance Discussion. Instructions for using Top Hat will be given on the first day of discussion. Top Hat will allow you to participate in discussions by answering questions during the presentation. Participation in Discussion is mandatory.
AKTIV	Chapter problem sets will be accessed through Aktiv Chemistry Instructions for enrolling in Aktiv chemistry can be found on Canvas
	Lecture
CHAPTER PROBLEM SETS	Chapter problem sets will be completed in Aktiv Chemistry. You should plan to spend a couple hours each day working on the problem sets. The problem sets for each chapter will be due on the day of the exams. Problem sets submitted after the due date will receive a 20% penalty per day. Full credit on the problem sets will be awarded to students who receive 90% of the points available for each problem set.
QUIZZES	Quizzes will be given online in TopHat Chemistry within a 12 hour window. Once you begin the quizzes, you will have approximately two hours to complete it. Be sure to note the quiz dates.
FINAL EXAM	The final exam will be given in-person during your last scheduled lab session. Please be sure that you are able to attend the last lab session.
	LAB
LAB ATTENDENCE POLICY	Attendance to lab is mandatory. There are 9 experiments, and you must complete at least 6 of them to receive a grade in the course. You are allowed one unexcused absence for any reasons. Subsequent absences require documentation (doctor's note, travel letter, etc.) If you know that you are going to miss a lab, contact your TA and chem200@sdsu.edu BEFORE your missed lab for instructions.
PRE-LABS	Pre-Labs will be required for most experiments (excluding Magnesium Unknowns and General Unknowns). Directions for what to include in your Pre-Lab can be found on Canvas. Pre-Labs will be due at your lab time the day the experiment is performed. Extensions on Pre-Labs will not be given under any circumstances, they are designed to help you prepare for the experiment so there is no value in having you complete them after the experiment has been performed. Pre-Labs will be scored for similarity by Turnitin. Pre-Labs with a similarity score of >60% will not receive credit. Be sure to check your similarity score after you submit your pre-lab.

NOTEBOOK PAGES	You will submit photos of you notebook pages on LabFlow the same day you perform the experiment. Your name and TA's dated signature should be clearly visible, and the required calculations should be complete.
LAB REPORTS	A lab report will be required for each of the 9 experiments, though the report for Magnesium Unknowns and General Unknowns will be different. You will have approximately one week to work on each lab report. Lab reports will be submitted on LabFlow and will be due at your lab time one week from when you performed the experiment
	Discussion
DISCUSSION ATTENDENCE POLICY	Discussion sessions will occur live on Zoom and you must attend the Zoom session to receive credit for each week's discussion. There will be 5 discussion meetings and you must attend at least 3 of the discussion meetings to receive a grade in the course. Discussions are participation based, and you must be present to participate. Therefore, there will be no make-ups for a missed discussion. You are allowed one unexcused absence for any reasons. Subsequent absences require documentation (doctor's note, travel letter, etc.) If you know that you are going to miss a discussion, contact your TA and chem200@sdsu.edu BEFORE your missed lab for instructions.
ATTENDANCE POINTS	Attendance will be taken within the first 10 minutes of class. If you are more than 10 minutes late you will lose points on that week's discussion.
PARTICIPATION POINTS	The majority of the discussion points will be rewarded for participating in the discussion on TopHat. You will be required to answer a variety of discussion questions throughout the discussion session. These questions will NOT be scored for correctness, but you must enter an answer to receive points. i.e. if you leave an answer blank, TopHat cannot give you the participation points.
WRAP UP	The wrap-up quizzes will be given at the end of the discussion session. You will work on these questions individually and they will be scored for correctness.
	Online Submission Policy
	Extensions on assignments will not be given. You have been given enough time to complete and submit each assignment. You should not consider the assignment deadline as the time and date to attempt to upload your work. Students who wait until the last minute can run into technical difficulties that they are unable to resolve before the assignment deadline, and these students will not be able to receive credit. Additionally, work submitted to Canvas can take up to 5 minutes to receive a time stamp. If you submit your work at 8:59am and it is not received until 9:01am, it is late and you should have tried to submit sooner. Make a habit of starting the chapter problems sets early and finishing your lab reports the same day you perform the experiment!

Point Distribution

Assignment	Points Per Assignment	Quantity	Total Points	Percentage
EH&S form	5	1	5	0.33%
Pre-Labs	10	Best 8 of 9	80	5.33%
Lab Reports	20	Best 8 of 9	160	10.67%
Notebook Pages	10	Best 8 of 9	80	5.33%
Discussion Attendance	15	Best 5 of 6	75	5.00%
Discussion Participation	30	Best 5 of 6	150	10.00%
Disucussion Wrap-up Quizzes	12	Best 5 of 6	60	4.00%
Chapter Problem Sets	20	7	140	9.33%
TopHat Quizzes	100	5	500	33.33%
Final Exam	250	1	250	16.67%%
TOTAL			1500	100.0%

Grading Scheme

Letter Grade	Percentage Range
A	> 90.0%
A-	87.0% - 89.9%
B+	85.0% - 86.9%
B	83.0% - 84.9%
B-	78.0% - 82.9%
C+	75.0% - 77.9%
C	70.0% - 74.9%
C-	65.0% - 69.9%
D	58.0% - 64.9%
F	< 58.0%

Inclusion in this Course

The CHEM 200 course instructors and TAs are committed to providing a safe and productive environment to all members of its community. Diversity, equity, and inclusion play a crucial role in making this possible. A diverse community allows for greater breadth of experiences and perspectives, both of which often lead to greater knowledge and understanding. An equitable environment aims to nullify systemic disadvantages and ensure fair treatment and

	equality of opportunity for all. Inclusion efforts create a feeling of belonging by actively inviting the contribution and participation of all people in our community. The American Chemical Society (ACS) recognizes the importance of diversity and inclusion, and their Chemist's Code of Conduct calls on chemical professionals to treat others with respect, not engage in discrimination, and be mindful of implicit bias and unconscious bias. Thus, we continually aim to foster an environment that respects and understands differences in race, ethnicity, national origin, religion, gender identity, sexual orientation, age, disability, economic status, and other circumstances. The course has been created with equity and diversity in mind are working with publishing companies who uphold these beliefs.
Finding Help on Campus	
	Need help finding help -- an advisor, tutoring, counselling, or emergency economic assistance? The SDSU Student Success Help Desk is here for you. Student assistants are available via Zoom Monday through Friday, 9:00 AM to 4:30 PM to help you find the office or service that can best assist with your particular questions or concerns. • CAL Student Success Center: https://cal.sdsu.edu/student-resources/student-success • College of Education Student Success Center: https://education.sdsu.edu/oss • Center for Student Success in Engineering: https://csse.sdsu.edu/ • CoS Student Success Center: https://cossuccess.sdsu.edu/ • FSB Student Success Center: https://business.sdsu.edu/undergrad/advising • HHS Adivisors: https://chhs.sdsu.edu/student-resources/advising/ • IVC Student Success and Retention: https://ivcampus.sdsu.edu/student_affairs/retention • PSFA Advisors: https://psfa.sdsu.edu/resources/student_advisors
SDSU ECONOMIC RESPONSE TEAM	If you or a friend are experiencing food or housing insecurity, technology concerns, or any unforeseen financial crisis, it is easy to get help! Visit sdsu.edu/ecrt for more information or to submit a request for assistance. SDSU's Economic Crisis Response Team (ECRT) aims to bridge the gap in resources for students experiencing immediate food, housing, or unforeseen financial crises that impacts student success. Using a holistic approach to well-being, ECRT supports students through crisis by leveraging a campus-wide collaboration that utilizes on and off-campus partnerships and provides direct referrals based on each student's unique circumstances. ECRT empowers students to identify and access long term, sustainable solutions in an effort to successfully graduate from SDSU. Within 24 to 72 hours of submitting a referral, students are contacted by the ECRT Coordinator and are quickly connected to the appropriate resources and services. For students who need assistance accessing technology for their classes, visit our ECRT website (sdsu.edu/ecrt) to be connected with the SDSU library's technology checkout program. The technology checkout program is available to both SDSU and Imperial Valley students.
SEXUAL VIOLENCE/TITLE IX MANDATED REPORTING	As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. I am a mandated reporter in my role as an SDSU employee. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep the information you share private to the greatest extent possible. However, I am required to share information regarding sexual violence on SDSU's campus with the Title IX coordinator, Jessica Rentto 619-594-6017. She (or her designee) will contact you to let you know about accommodations and support services at SDSU and possibilities for holding

	accountable the person who harmed you. Know that you will not be forced to share information you do not wish to disclose and your level of involvement will be your choice. If you do not want the Title IX Officer notified, instead of disclosing this information to your instructor, you can speak confidentially with the following people on campus and in the community. They can connect you with support services and discuss options for pursuing a University or criminal investigation. Sexual Violence Victim Advocate 619-594-0210 or Counseling and Psychological Services 619-594-5220, psycserv@sdsu.edu. For more information regarding your university rights and options as a survivor of sexual misconduct or sexual violence, please visit titleix.sdsu.edu or sdsutalks.sdsu.edu.	