This syllabus is subject to change at the instructors' discretion.

General Information

LOCATION/TIME

LECTURE:
No Scheduled Time - Lecture Videos found on TopHat

LAB:
CSL 525 OR 527
M Th 9:00 am - 12:40 am OR 2:00 pm - 5:40 pm

DISCUSSION:
W 9:00 am - 11:40 am OR 2:00 pm - 4:40 pm
Online via Zoom - Must attend LIVE

PROFESSOR INFORMATION

Megan Bowles
Office: GMCS 213A
Office Hours: Wednesday 12:30 pm - 2:30 pm (subject to change) Always on Zoom, sometimes in person

https://SDSU.zoom.us/j/82901306585

INSTRUCTOR /COORDINATOR EMAIL

chem200@sdsu.edu should be the contact for all course communication

This email goes directly to your professors. DO NOT contact your instructors or TA's over Canvas, you will not receive a response. ALWAY include BOTH your course number and your DISCUSSION section number!!

CONTACT HOURS

Your TA's and your instructors keep regular business hours (Monday – Friday, 8am to 5pm). If you contact them outside these hours, you may not receive a response until the next business day. Ask your questions early! If you wait until the weekend to try and get your questions answered, you may not get the help you need before the assignment is due!

STUDENT COMMUNICATION

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.

Resources to Help You Succeed

MATH AND SCIENCE LEARNING CENTER

Chem 200 TAs will hold their office hours virtually through the MSLC

https://mslc.sdsu.edu/chemistry200-ta/

The MSLC will also have in-person Chem tutors during their open hours.

Math & Science Learning Center

SDS ACCOMMODATIONS

https://sds.sdsu.edu/

If you are a student with a disability and are in need of accommodation for this class, please contact Student Ability Success Center at sascinfo@sdsu.edu (or go to sdsu.edu/sasc) as soon as possible. Please know accommodations are not retroactive, and I cannot provide accommodations based upon disability until I have received an accommodation letter from Student Ability Success Center. SASC registration and accommodation approvals may take up to 10-14 business days, so please plan accordingly

General Learning Outcomes

Below is a summary of what students should be capable of upon the successful completion of this course

• Perform calculations with the correct number of significant figures with a variety of SI units.
• Name and write a range of simple ionic and molecular formulas.
• Describe the structure of atoms and the various classes of compounds that they can form. Classify the different states of matter, describe each state at the molecular level.
• Use Avogadro's number and reaction stoichiometry to calculate the amounts of reactants and products involved in chemical reactions.
• Write and balance chemical reactions.
• Describe the major classes of chemical reactions at a molecular level and perform stoichiometric calculations related to these reactions.
• Describe, manipulate, and use the ideal gas law.
• Describe the kinetic-molecular theory of gases and how it deviates from real gas behavior. Perform calculations on the exchange of heat in thermochemical processes.
• Calculate the enthalpy of chemical reactions.
• Describe and apply the quantum theory rules of atomic structure.
• Describe the electron configurations of many electron atoms.
• Use trends in atomic properties to compare different elements.
• Differentiate and describe the various models of chemical bonding.
• Compare and calculate bond energies.
• Draw and identify molecular structures based on the Lewis and VSEPR models. • Describe covalent bonding in terms of the valence bond and molecular orbital theories.
• Define the various changes of physical states for a substance and quantify the related enthalpy changes.
• Describe and differentiate the various forms of intermolecular forces.
• Describe and predict solubility in terms of intermolecular forces.
• Quantify the influence of solutes on the colligative properties of solutions.

Attendance Policy

LECTURE

In this summer course, lectures will be in the form of pre-recorded lecture videos that you can watch on your own time.

LAB

You are required to attend the Lab Section in which you are enrolled and attendance is mandatory. Learning how to work in a laboratory environment is one of the essential parts of becoming a chemist. Students passing Chem 200 are expected to have had experience in the laboratory and have gained important lab skills needed for future classes and beyond. Students who miss 3 or more experiments

have not had this experience and will not be eligible to receive a passing grade in the course. The policies for missed lab work vary by assignment type.

DISCUSSION

You are required to attend the Discussion Section in which you are enrolled. In your discussion sections, you will work on problems with your fellow students that will help your understanding of the lecture material. Discussion is participation based so attendance is mandatory and there is no way to make up missed discussion points.. Your lowest discussion score will be dropped from your overall grade so you can miss one discussion without impacting your grade.

MEDICAL ABSENCES OR ILLNESSES

If you must miss class due to illness, injury or emergency, please note:

University policy instructs students to contact their professor/instructor/coach in the event they need to miss class due to an illness, injury, or emergency. All decisions about the impact of an absence, as well as any arrangements for making up work, rest with the instructors. Please see the above Attendance policy.

Student Health Services (SHS) does not provide medical excuses for short-term absences due to illness or injury. When a medical-related absence persists beyond five days, SHS will work with students to provide appropriate documentation.

When a student is hospitalized or has a serious, ongoing illness or injury, SHS will, at the student's request and with the student's consent, communicate with the student's instructors via the Vice President for Student Affairs and Campus Diversity and may communicate with the student's Assistant Dean and/or the Student Ability Success Center.

Online Resources

CANVAS

Enrollment in Canvas is automatic if you are currently enrolled in this course. Canvas will be used for all course communication so you should check Canvas regularly to keep up to date on important announcements. Your instructors and TA's are available to answer any questions about Canvas, but it is ultimately your responsibility to troubleshoot any technical issues.

AKTIV

Chapter problem sets will be accessed through Aktiv Chemistry. You will enroll in Aktiv chemistry using the link on Canvas. You must navigate to Aktiv using this link otherwise your account will not be linked to our course. The first time you click this link must be from a laptop or desktop. After you set up your account, you should download the app to use on your mobile device.

LABFLOW

Lab Reports, Lab Notebook Pages, Pre-Labs and Pre-Quizzes will be submitted on LabFlow. You will enroll in LabFlow during your first lab meeting, there is nothing you will need to complete until that time.

TOP HAT

Lecture material and lecture videos can be found on TopHat. Quizzes and Exams will be given on TopHat. TopHat will also be used during discussion class time. You will need to enroll in TopHat using the link on Canvas. Further instructions for enrolling in TopHat will be given in Discussion.

Required Materials

SUBSCRIPTIONS FOR THE ABOVE THREE PROGRAMS WILL BE REQUIRED TO PARTICIPATE IN THIS COURSE. There will not be alternative ways to submit or complete your assignments. You will also need a scientific calculator, chemical safety glasses and a blue lab coat or lab apron.

Assignment Information

LECTURE ASSIGNMENTS

Problem Sets

(Aktiv) There will be a chapter problem set from each of the 11 chapters covered in the text. Work on the problems several days before it's due so you have time to go to the help room and ask for more help. Never wait until the last day to work on the problem set, otherwise you will be rushing through the assignment and instead of learning how to break down problems and theories to better equip you for the exams. Full points can be obtained for each chapter's problem set by scoring above 90% on the problems for that chapter. It is in your best interest to complete all the problem sets to ensure that you are fully prepared for the exams. Problem sets will be due the day of the exam. Any Aktiv points earned after this deadline will receive a 20% point reduction per day until 5 days after the deadline.

Exams

(In-Person/online) There will be four unit exams and one cumulative final. Exams 1, 3 and 4 will be taken online during the 12 hour exam window. Exam 2 and the Final exam will be given in-person during your scheduled lab time.

LAB ASSIGNMENTS

Lab Safety Quiz

(LABFLOW) Your first lab meeting will cover lab safety and you will take a lab safety quiz. You must receive a score of 60% or greater in order to continue to participate in lab. If you fail to achieve a 60% or higher on the online quiz or fail to take the quiz, you will be required to make-up the safety quiz. Instructions for making up the safety quiz will be announced. Making up the safety quiz will clear you to work in the Lab but you will not replace your safety quiz score.

EH&S Form

(CANVAS) This course requires the use and handling of hazardous materials. You must complete the Environmental Health and Safety module and survey in our Canvas. If you do not complete the form by the deadline you will lose those points, and you will not be allowed to enter the labs until it has been completed.

Pre-Lab Quizzes

(LABFLOW) Pre-Quizzes are to help you prepare yourself for the experiment you will be doing. There will be calculations, safety questions, and topic questions to help you understand what you are doing in the lab. This assignment must be completed before coming to lab and will be due at the start of your lab period each week. The quizzes are to prepare you for the experiment, so they cannot be completed after the experiments. No quizzes will be dropped, so you should always complete the quiz even if you are unable to attend the lab session

Pre-Labs

(LABFLOW) Pre-Labs will need to be submitted to LabFlow. Instructions for writing a Pre-Lab will be covered in your lab period. Pre-labs will be reviewed for similarity by TURNITIN and pre-labs with high similarity scores will be given an automatic zero. Your lowest Pre-Lab score will be dropped from your overall grade so you can miss one Pre-Lab submission without penalty

Notebook Pages

(LABFLOW) Your lab notebook is where you will record the data, perform the calculations and answer the discussion questions for each experiment. Your TA will sign and date your notebook pages after each experiment to verify your attendance. You will not be able to earn points for your lab report if your TA is unable to verify that you were present for the experiment. If you are completing the experiment using provisional data, you will also be doing the calculations in your notebook. You will take pictures of

your finished notebook pages and submit them to LabFlow within 24 hours of completing the experiment. You may submit your Notebook pages up to 1 week after the experiment for 50% credit. Notebook pages are not eligible for credit beyond this deadline. Notebook page deadlines remain unchanged when you are using provisional data. Your lowest Notebook Pages score will be dropped from your overall grade so you can miss one submission without penalty

Lab Reports

(LABFLOW) You will perform your lab experiments during your lab session on either Monday or Tuesday. Your Lab Report will be due the following week before your lab period. You must be present during your scheduled lab session in order to collect the data for your lab report and TA's will confirm your attendance for that week before they grade your lab report. If you are unable to attend a lab session, you MAY be given the opportunity to complete the experiment virtually with provisional data. Your lowest Lab Report score will be dropped from your overall grade so you can miss one Lab Report submission without penalty

Lab Practical

(LABFLOW and IN-PERSON) The Lab Practical will be the final assignment for the lab portion of this course. It will consist of a hands-on portion which will test you on the practical lab skills that you learned during the semester. This part will be completed during your scheduled lab section on the week scheduled for the Lab Practical. There will be no way to make up the in-person portion of the Lab Practical, so you must be present to receive a grade. The second part of the lab practical will be completed online and will test you on data analysis and important concepts that you learned in the lab. The online portion will be available at 8:00 am on Monday and be available 8:00 pm on Tuesday (36 hours total) the same week we complete the in-person practical.

DISCUSSION ASSIGNMENTS

Discussions are participation based and must be attended in-person. Attendance will be taken each week and you will only receive credit for weeks you were present in your discussion section.

Group Discussion Questions

(TopHat) During the first 40 minutes, your discussion TA will present the discussion topics for that day, and you will get in groups to answer a series of discussion questions. The discussion questions are currently available on TopHat for you to think about the answers to prepare for discussion. Once you are in discussion, you will submit your answers for credit. Answers to the group discussion questions will be scored for participation but not correctness.

Attendance

(In-Person) Attendance will be taken at the beginning of each class. You must arrive on time! If your TA has completed attendance by the time you arrive you will miss those points.

Discussion Quiz

(TopHat) In the last 10 minutes of discussion, you will complete the discussion quiz. These questions will be answered individually and will be scored for credit. Discussion Quiz questions will be formatted in the same way as the exam questions.

Please check your grades frequently, especially after each exam. Email chem200@sdsu.edu if you think there is a calculation mistake. At the end of the semester, when grades are finalized, email only if there is a calculation mistake. Your grades will be rounded according to the rounding rules taught in this course.

The point distribution and letter grade percentage ranges can be found in the Canvas Version of the Syllabus

Online Submission Policy

The deadlines for the online assignments, including lab reports, pre-labs, and other assignments are hard deadlines and extensions will not be granted. All assignments will be scheduled with more than sufficient time to allow you to complete the assignment in advance of the "last minute". Consequently, you are solely responsible for any failures to complete the assignment by the scheduled time. Problems such as lack of internet service, website problems, or power outages will not be acceptable reasons for not completing the assignments. We also cannot give extensions for students who do not set up their online accounts in time for the first assignment deadlines or for students who don't figure out how to use the programs properly. Technical support services as well as your TAs and instructors are available to help, so it is your responsibility to seek assistance in time to turn in your assignments. The most successful students complete AND submit the assignments well before the deadlines to avoid potential technological obstacles. If you have any personal technology issues the Library Computing Hub provides computing and technical support for students. In the case of an extended system-wide failure the instructors will be notified by the site operator and steps will be taken to accommodate any problems that arise. For all technical difficulties or errors that arise with any of the learning systems please contact the technical support staff directly by phone, email or chat. The instructors, lab coordinators, and TAs are not IT support and will not be able to help you with anything but the most basic common issues.

Late and Dropped Assignment Policy

There will be many assignments due throughout the course of the semester. We understand that sometimes students will be unable to turn in assignments due to valid reasons like illness, other classwork, personal hardship etc. In order to allow for flexibility, certain assignments will be dropped from your overall grade or can be submitted after the deadline for a point penalty. The dropped assignments policy exists so that one excused absence is inherent in the grading scheme. If you have documentation for an absence, you should fill out the Missed Lab/Discussion Form so we can record your absences. No steps need to be taken after your first missed assignment. If you miss a second of the same assignment type, instructors and/or coordinators will address your second absence at that time. If you are absent for an experiment, you should complete the lab work using provisional data so that you do not have to drop that week's assignments.

The dropped assignments policy does not exist to allow everyone to "bomb" one report, exam, etc. Students who miss a first assignment for a documented reason often ask for that assignment to be excused so they still have an assignment they can drop later in the semester. However, that would defeat the purpose of this policy if instructors and coordinators still end up having to excuse your first absence. If you have documentation for a missed assignment and then miss a second assignment, at that time we may retroactively excuse any previous assignments for which you had documentation. The decision to excuse assignments will be made on a case-by-case basis by the instructors.

Certain assignments are accepted after the deadline for a point penalty and others are not. For more information about the late/dropped assignment policy see the specific assignment descriptions for Lecture, Lab and Discussion.

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, working with publishing companies who uphold these beliefs.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 Advisors: 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

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.

Resources on Campus

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 impact student success. Using a holistic approach to well-being, ECRT supports students through crises 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.

Point Distribution

Assignment	Location	Points	Quantity	Total Points	Percentage
Lab Safety	LabFlow	20	1	20	1.24%
EH&S	Canvas	5	1	5	0.31%
How to…	LabFlow	20	1	20	1.24%
Pre-Quizzes	LabFlow	3	9	27	1.68%
Pre-Labs	LabFlow	8	Best 8 of 9	64	3.96%
Notebook Pages	LabFlow	5	Best 8 of 9	40	2.48%
Lab Reports	LabFlow	18	Best 8 of 9	144	8.94%
Discussion Attendance	In-Person	15	Best 5 of 6	65	4.04%
Discussion Participation	TopHat	20	Best 5 of 6	100	6.21%
Discussion Wrap-Ups	TopHat	15	Best 5 of 6	65	4.04%
Chapter Problem Sets	Aktiv	20	11	220	13.66%
Unit Quizzes	Aktive	100	Best 4 of 5	400	24.84%
Midterm	In-Person	200	1	250	12.42%
Final	In-Person	200	1	250	12.42%
Lab Practical Experiment	In-Person	40	1	40	2.48%
			TOTAL	1610	100.00%

Grading Scheme

Letter Grade	Percentage Range
A	> 90.0%
A-	85.00%-89.99%
B+	80.00%-84.99%

B	75.00%-79.99%
B-	72.00%-74.99%
C+	68.00%-71.99%
C	62.00%-67.99%
C-	58.00%-61.99%
D	53.00%-57.99%
F	< 52.99%