De Anza Winter 2021, Syllabus INTRO GEN, ORG AND BIOCHEM I

Course information : CHEM , Section 32213, 32214 (30 A ,30 Z AND 32 Z)

Course Type : Academic: Online (Synchronous)

Class lecture: Lecture 30 A 5:30 PM -7:30 PM Tuesday and Thursday Synchronous via ZOOM

Class record number: 32213 Lab (30Z):7:30 PM -8:20 PM Tuesday Synchronous via ZOOM

32214 Lab (32Z):7:30 PM -8:20 PM Thursday Synchronous via ZOOM

ZOOM Office hours : Friday: 12: 00 PM to 1:00 PM AND1:00PM -2:00 PM via Zoom

Instructor Information: Dr. Divya Gairola gairoladivya@fhda.edu

Communication Policy and Response Time: use the Inbox within Canvas to contact me. (Top right corner where it says Inbox). If Canvas is down or you need an alternative email, you can use my email address gairoladivya@fhda.edu

Be sure to label all messages as Course Prefix/Number, followed by a brief subject description. I will respond within 24 hours Monday through Friday. If I am working on the weekends and holidays, I will respond within 48 hours. For questions that may be of general interest to the class, please use the general course discussion board in Canvas. Please send me a message in Canvas with specific questions about the class, or regarding personal matters. Do not hesitate to contact me whenever you have concerns about your progress, or if you need help.

Expectations of Time commitment: This 5-unit course meets online synchronous mode. Students are expected to commit at least **16 -20 hours in a week** outside of the class and laboratory for reading, writing, researching, and completing assignments.

Course Description: This is a two-part course to be taken in sequence by students entering the allied health fields. The focus of the first part of this course is an introduction to general chemistry with a discussion of various measurement tools, followed by a discussion of energy and matter, and the discovery of an atom. The next set of topics will cover an introduction to elements, compounds, and types of bonding in compounds, followed by various types of chemical reactions and stoichiometric calculations based on chemical equations. The course will discuss the properties of gases and solutions and concludes with a discussion of acid-base chemistry and nuclear chemistry.

Prerequisites: A grade of C or better in MATH 114 or the equivalent

Footnote: This is an online lecture and laboratory class with SOME scheduled meetings as noted in the class listing. The rest of the class can be completed independently each week on the student's own time. Students must have access to a computer, the internet and an individual email address. Most De Anza classes will use the Canvas course management system. We recommend a laptop or desktop computer to successfully complete the course; a tablet or phone may not be adequate for all assignments and tests. Information about Canvas and Online Education Orientation can be found on Canvas on the Student Resources page: https://deanza.instructure.com/courses/3382. The Student Online Resources hub with extensive information and tips can be found at deanza.edu/online-ed/students/remotelearning

Course material (required) :

- Janice G. Smith, General, Organic and Biological Chemistry, 4th ed., McGraw-Hill. ISBN 9781307601619 One quarter access to the electronic text is also available through the publisher at a cost of $30 by following the instructions on the Canvas home page.
- CHM 101 one quarter subscription for homework, Please check the link for detail Chem 101
- Scientific or Graphing Calculator: You will need a calculator that is capable of handling the standard arithmetic operations, as well as logarithms and exponentials. Any standard scientific calculator is likely to be sufficient.
- **Lab Kit**: Kits from Hands-On Labs are required to complete the laboratory portion of the course. These kits will be available through the bookstore after the course census date and should be ordered immediately to ensure that they are received in time for the first at-home lab in week 5.
- **Third-Party Tool(s)Statements**: In this course, we will use **CHM101, Youtube, GoogleDocs, GoogleSheets, GoogleSlides** as web-based 3rd party tool(s) to complete or participate in assignments, activities, and/or access course materials. Students may be required to establish a username or password, submit work, and/or download information from these tools. There is, therefore, some risk that individuals electing to use the products and services made available by these tools may place any student information shared with the tool vendor at risk of disclosure.

Course policies:

Attendance and Withdrawal:

Attendance in lectures has a strong correlation to higher grades in class. Attendance will be monitored throughout the semester. If you know that you will miss class, then please notify the instructor within 24 hours of the absence. More than two unexcused absences may result in failure or withdrawal from the course. If a student accumulates more than two absences, then the instructor has the ability to assign a W or an F at his/her discretion. Please do not "Ghost"

withdraw: stop showing up. All absences must be presented to the instructor and verified with documentation.

Examples of valid excuses:

1. School sanctioned event WITH a minimum of one-week instructor notice
2. Court date WITH minimum 24-hour notice to instructor.
3. A car accident or health issue WITH a minimum 24-hour notice to the instructor

Unexcused absences will count as zeros in the grade book. Examples:

1. Disrespectful behavior in class as deemed by the instructor
2. Unapproved planned absence
3. Emergency with less than 24-hour instructor notification

24-hour notice expands 24 hours before and after the start of class time.

Withdrawal is a student option up to two weeks before the final exam. To withdraw YOU MUST REQUEST a W from the instructor VIA EMAIL this provides the necessary documentation to protect you and the instructor. If you start the final exam, then you will earn a letter grade A, B, C, D, or F. This is fully student RESPONSIBILITY to follow the De Anza Catalog and the student handbook (withdrawal) guidelines.

Conduct: Classroom Behavior and Civility. While I understand that we all have things that are out of our control, I do expect students to show up on time and ready to participate in class. This means getting a good night's sleep, eating lunch, answering phone calls, etc BEFORE class. I do ask questions often and expect responses from students. I do reserve the right to penalize classroom outbursts in the form of point deductions, removal from that class, or withdrawal/failure of the course.

You are expected to treat your instructor and your fellow classmates with respect. In all correspondence, whether communicating in person or online, you should show respect for the viewpoints of others who may disagree with you or see things from a different perspective. Criticizing, ridiculing, insulting, or belittling others will not be accepted. Keep in mind that electronic communications do not have the advantage of nonverbal cues that are so much a part of interpersonal communication. Humor or satire can sometimes be misinterpreted in strictly electronic communication forums.

Academic integrity: Besides academic performance, students should exhibit the qualities of honesty and integrity. Every student is expected to produce his/her original, independent work. Any student whose work indicates a violation of the De Anza Academic Misconduct Policy including cheating, plagiarism, and dishonesty will be subject to disciplinary action. Cheating or plagiarizing in any form including but not limited to those above will not be tolerated. The first offense of academic dishonesty will result in a zero for the relevant exam or assignment, which may lead to failing the course. The offending student will also be reported to the Dean of

Student Development, which may result in additional administrative consequences. For a fuller description of what constitutes a violation of academic integrity, see the De Anza College academic honor code the link below: www.deanza.edu/policies/academic_integrity.html

Classroom Accommodations for Students with Disabilities: In accordance with the Americans with Disabilities Act, the colleges are committed to providing equitable access to learning opportunities to students with documented disabilities (e.g. mental health, attentional, learning, chronic health, sensory, or physical). Each class/term/semester that a student is in need of academic adjustments/accommodations, the qualified student is required to work with the Disability Resources & Services Office (DRS) at their individual college(s). Contact with the DRS should be made as soon as possible to ensure academic needs are met in a reasonable time. New and returning students must request accommodations each semester through DRS Connect online services. To learn more about this easy process, please contact your local DRS office. I am not able to provide accommodations without written notice from that office. The DSPS website is found at www.deanza.edu/dsps.

Statement of Student Responsibility: As a registered student in this class, it's your responsibility to know and understand the contents of this syllabus. Ask if you have any questions! It's also your responsibility to be aware of your rights and responsibilities as a De Anza student. These may be found in the De Anza College Catalog and Student Handbook.

Tutoring: Check at https://www.deanza.edu/studentsuccess/onlinetutoring/

Other campus services can be found as part of the student success center as well: http://www.deanza.edu/studentsucces

Addressing Incidents of Title IX Sexual Harassment:
http://www.deanza.edu/titleix/studentguide.pdf

Veteran services: https://www.deanza.edu/veteran

Major Assignments and Activities :

The course consists of 10 modules over __11__ weeks plus finals week. Each module corresponds from 1-2 weeks. Modules will contain some or all the following components:

Announcements: Be sure to check these announcements weekly for time-sensitive information, reminders, and changes.

The pattern of the module: Lecture Slides, Worked example, Clicker point, homework, quiz, discussion and Ask your instructor.

The goal of the assignments is for the student to think about issues and ideas related to the subject area. The assignments will demonstrate understanding and application of your reading and/or research.

Lab: The lab meetings for the course will include a synchronous meeting beginning at the start of the scheduled period, during which we will discuss the topics or techniques relevant to the week's lab exercise. After that discussion is complete, you will have the option to stay and complete the lab exercise synchronously, so that you can ask questions if any issues arise, or you may elect to complete the lab on your own time. In either case, all work associated with a lab must be submitted to Canvas and/or Hands-On-Labs by the due date(Check tentative lab schedule on canvas).

Assignment Deadlines: All assignments have a specific due date. Assignments may not be turned in late unless there is a legitimate documented emergency. You must contact me before the due date and ask for an extension. I will consider each request on a case-by-case basis. Late assignments will automatically lose 10% of the grade.

Class Notes:

Lecture /Labs related slides will be posted on canvas. It helps you if you take notes during class as problems and examples will be covered during lectures/labs. I will post additional resources on canvas to learn course content in different ways.

NOTE: You will be able to access everything you need for each week's work from within the module.

Course evaluation :

Homework: 200 points there will be online homework assignments facilitated through a program called Chem101. Homework is due on the date posted. A separate handout is posted on the Canvas site which explains registration and enrollment instructions.

Quiz (100 points) Quizzes: There will be 8-10 graded quizzes. Quizzes will be multiple-choice, true/false, and short answers. quizzes will be given in most modules to check your understanding of the readings and to highlight important concepts. There will be 8-10 graded quizzes.

Exams1 AND 2 = 200 (2x 100pts) These exams will replicate the difficulty of the final exam. All exams will be mainly multiple-choice with the chance for no more than five short answers. Questions will range in difficulty from direct mimics of homework questions to more complex applications of the concepts discussed. Documented and excused absences on the day of an exam may result in the availability of the test 24 hours before and after the originally scheduled time.

Final Exam (200 pts)The final exam will be cumulative (cover all material from the course). The final is a campus standardized multiple-choice test that covers all of the De Anza course competencies The final exam is scheduled already in the De Anza Class schedule and is listed in the Tentative Schedule.

lab report and lab exam: 200 points and 50 points

Discussion /Attendance and participation: 50 points: You will benefit greatly by leveraging the vast experience everyone has in this course by participating in the discussions fully. There are ***6*** **discussion boards**. Here you will reply to the question posed on the Discussion Board. Discussion Board postings are designed to prompt you to reflect on that week's lessons. You will read the discussion posts of your classmates to get a sense of the variety of perspectives and viewpoints on a particular topic as well as to build community and interaction in this course. Please take the time to read and respond to each other's posts. A rubric will be used to grade discussion board posts. Some discussion boards are not graded but are there to allow you to support each other and work together. Please see info about netiquette below.

Netiquette

- Netiquette refers to the rules of behavior while on the Internet. When interacting within the online course environment, please follow the below
- Show professionalism and courtesy in all communications within the
- No one else should be given access to the course or conferences without the faculty member's permission
- Do not use the words or text from others without acknowledging the source
- Humor can easily be misinterpreted within the online environment, please be cautious with the use of humor and use symbols to help prevent misunderstandings.
- Adhere to the same behavioral standards as you would in a face to face classroom and as is specified in the De Anza student handbook
- Avoid typing in all capital letters, for those of us using the Internet frequently, this can seem like you are 'yelling'
- Respect other people's time and contribute thoughtful comments and ideas to the discussions rather than simply making statements such as 'I agree'
- Use correct spelling and grammar. Avoid the use of abbreviations and use spell check within your word processor or within the course to check the spelling of your communications

Grading: There is a total of 1000 points possible for the course. Grades will be assigned based on the standard.

A curve will be used as necessary, however, the minimum cutoffs will never be raised.

ASSIGNMENTS	POINTS	FINAL GRADE
HOMEWORK VIA CHEM 101	200	A >= (90 %)
QUIZZES	100	B>= (80%)
EXAM -1 AND EXAM -2	200 (100 each)	C>= (70%)
FINAL EXAM	200 Mandatory to complete chem 30 A COURSE	D>= (60%)
LAB REPORT	200	F= (LESS THAN 60 %)
LAB EXAM	50	
DISCUSSION/ATTENDANCE and PARTICIPATION	50	
TOTAL POINTS	1000	

Tips for College Success

1. Arrive at every class meeting on time and ready to learn.
2. Develop effective time management skills, by trying different strategies and evaluate periodically.
3. Complete and turn in your homework and class assignments.
4. Give yourself enough 2-3 hours of studying (sometimes more).
5. Communicate wh time to study, read, write, and research. One hour of the class can often mean with your professor(s) frequently.
6. Ask questions of your professor(s), if you are unsure or need clarification on an assignment or exam.
7. Get involved on campus.
8. Build a support network and/or study groups with your fellow students.
9. Establish your academic goals by seeking out career services and meeting with academic advisors regularly.
10. Find the best balance between your academic workload and your life responsibilities (work, family, etc.).
11. Know and use campus resources.
12. Ask for help. You don't have to figure out everything on your own. From getting help to pay for school, working with a tutor to improve your grades, or attending college workshops, De Anza offers services both in-person and online to support your success. Use them early and often. Service hours and success workshops are announced through the De Anza.edu website and social media.

Test-Taking Tips and Tricks

- Be sure that you understand what will be on the test and what concepts will be covered.
- Study in reasonable time segments, take a break, then study again.
- Group study material together into logical pieces.
- Use one of these 9 Types of Mnemonics to Improve Your Memory (Links to an external site.) (link to the article from verywellhealth.com).
- When answering an essay or problem-solving questions, make sure you read the entire question and understand what it is asking of you.
- When answering multiple-choice questions, eliminate the most illogical questions first, then focus on the others.
- Get plenty of sleep the night before the test.
- Arrive early on the day of the test to allow sufficient time to prepare and be present.
- Make sure that you eat a nutritious meal before the test.

Additional Information is found in the De Anza Lab Safety Document:

Since you will be working at home rather than in the lab, the set of safety guidelines is slightly different from normal but is no less important, and it is up to you to ensure that you follow them in order to avoid injuring yourself or those around you:

1. Chemistry Department-approved safety goggles (NOT safety glasses) must be worn at all times once laboratory work begins, including when obtaining equipment from the stockroom or removing equipment from student drawers, and may not be removed until all laboratory work has ended and all glassware has been returned to student drawers.
2. Shoes that completely enclose the foot are to be worn at all times; NO sandals, open-toed, or open-topped shoes, or slippers, even with socks on, are to be worn in the lab.
3. Shorts, cut-offs, skirts or pants exposing skin above the ankle, and sleeveless tops may not be worn in the lab: ankle-length clothing must be worn at all times.

4. Hair reaching the top of the shoulders must be tied back securely.

5. Loose clothing must be constrained.

6. Wearing "...jewelry such as rings, bracelets, and wristwatches in the laboratory..." should be discouraged to prevent "...chemical seepage in between the jewelry and skin...".

7. Eating, drinking, or applying cosmetics in the laboratory is forbidden at ALL times, including during lab lectures.

8. Use of electronic devices requiring headphones in the laboratory is prohibited at ALL times, including during lab lecture

9. Students are advised to inform their instructor about any pre-existing medical conditions, such as pregnancy, epilepsy, or diabetes, that they have that might affect their performance.
10. Students not enrolled in the laboratory class may not be in the lab at any time after the first lab period of each quarter.
11. Students are required to follow the De Anza College Code of Conduct at all times while in the lab: “horseplay”, yelling, offensive language, or any behavior that could startle or frighten another student is not allowed during the lab.

\Strongly recommended: Wear Nitrile gloves while performing lab work; wear a chemically resistant lab coat or lab apron; wear shoes made of leather or polymeric leather substitute. Reckless behavior will not be tolerated. If your actions endanger the health and safety of yourself or someone else you will be asked to leave and you will receive a zero for the day.

CHEM D030A.30Z: Lab schedule Winter 2021 VIA ZOOM at 7:30 PM to 8: 20 PM

WEEK (Tuesday)	DATE	LAB EXERCISE	LAB DUE DATES
1	5th Jan	Introduction to Lab Safety	11 Jan at 11:59 pm via canvas
2	12Jan	Worksheet – Measurements and Sig Figs	18Jan
3	19Jan	Worksheet – Chemical Nomenclature	25Jan
4	26Jan	Worksheet – Molecular Shapes	1 Feb
5	2Feb	HOL – Laboratory Techniques and Measurements	8 Feb
6	9Feb	HOL – Introduction to Chemical Compounds	15 Feb
7	16Feb	HOL – Observations of Chemical Changes	22 Feb
8	23 Feb	HOL – Limiting Reactants	1 March
9	2 March	HOL – Solutions and Dilutions	8 March
10	9 March	Comprehensive Lab Exam	15 March

11	16 March	FINALS WEEK – NO LAB	22 March
12		Final lab checkout	

CHEM 30A Tentative lecture schedule Winter -2021

Week	Tuesday lecture	Thursday lecture
1	CHECK-IN Ch. 1: Matter and Measurement	CHECK-IN Ch 1: Matter and Measurement Ch 2: Atoms/ Periodic Table
2	MEASUREMENTS Ch 2: Atoms/ Periodic Table	MEASUREMENTS Ch 3: Ionic Compounds Quiz 1: Ch. 1+2
3	NOMENCLATURE Ch 3: Ionic Compounds Ch 4: Covalent Compounds	NOMENCLATURE Ch 4: Covalent Compounds
4	MODELS Review/Practice	MODELS **EXAM 1: Chp 1-4**
5	HYDRATES (PART 1) Ch 5: Chemical Reactions	HYDRATES (PART 1) Ch 5: Chemical Reactions Ch 6: Energy and Reactions
6	HYDRATES (PART 2) Ch 6: Energy and Reactions Ch. 7: Gases, Liquids, and Solids	HYDRATES (PART 2) Ch. 7: Gases, Liquids, and Solids Q
7	MOLAR VOLUME Ch 8: Solutions	MOLAR VOLUME Ch 8: Solutions

8	CONDUCTIVITY Review/Practice	CONDUCTIVITY **EXAM 2: Chp 5-7**
9	ACID/BASE (1) Ch 9: Acids/Bases	ACID/BASE (1) Ch 9: Acids/Bases
10	ACID/BASE (2) Ch 9: Acids/Bases	ACID/BASE (2) Ch 10: Nuclear Chemistry
11	LAB FINAL/CHECK OUT Ch 10: Nuclear Chemistry	LAB FINAL/CHECK OUT
12	**Final exam on (22-26) March 2021**	

CHEM D030A.32Z: Lab schedule Winter 2021 VIA ZOOM at 7:30 PM to 8: 20 PM

WEEK **(Thursday)**	**DATE**	**LAB EXERCISE**	**LAB DUE DATES**
1	7Jan	Introduction to Lab Safety	13 Jan at 11:59 pm via canvas
2	14Jan	Worksheet – Measurements and Sig Figs	20 Jan

3	21 Jan	Worksheet – Chemical Nomenclature	27 Jan
4	28 Jan	Worksheet – Molecular Shapes	3 Feb
5	4 Feb	HOL – Laboratory Techniques and Measurements	10 Feb
6	11 Feb	HOL – Introduction to Chemical Compounds	17 Feb
7	18 Feb	HOL – Observations of Chemical Changes	24 Feb
8	25 Feb	HOL – Limiting Reactants	3 March
9	4 March	HOL – Solutions and Dilutions	10 March
10	11 March	Comprehensive Lab Exam	17 March
11	18 March	FINALS WEEK – NO LAB	24 March
12	25 March		

Winter 2021	Important dates
January 18	Last day to drop classes without a W Martin Luther King Jr. Holiday - Campus Closed
January 29	Last day to request "Pass/No Pass" for 12-week classes
February 12 -15	Presidents' Holiday - Campus Closed
February 26	Last day to drop classes with "W"
March 22-26	Final exam

Disclaimer: Dates and scheduled topics are tentative. Topics may be presented in an order that differs from that stated and may be adjusted to meet the needs of the particular group of students. Dr. Divya Gairola reserves the right to change exam and quiz dates as well as modify the grade scale at any point during the winter 2021 quarter.

Statement regarding Syllabus Changes: This syllabus is intended to contain complete and accurate information; however, Divya Gairola reserves the right to adjust this syllabus during the course. Students will be notified by the faculty member of any changes in course requirements or policies via Canvas, announcements, or in lecture.

Student Learning Outcome(s):

*Solve stoichiometric problems by applying appropriate molar relationships.
*Identify the differences between elements and compounds and describe the chemical bonding in compounds- ionics vs. covalent.