San José State University
Chemistry Department
Chem 030B, Introductory Chemistry, Spring 2021

Class Days/Time and Instructors:

Section	Day & Time	Instructor	email	Office hours
1 (Lecture)	MW 8:00 -8:50	Anh-Tuyet Tran	anh-tuyet.tran@sjsu.edu	M 10 – 11 am W 3 – 4 pm F 12 – 1 pm
Lab Coordinator		Melody Esfandiari	melody.esfandiari@sjsu.edu	F 12:30 – 2 pm
2 (Lab)	W 9:30 – 12:20	Alejandro Herrera	alejandro.herrera@sjsu.edu	M 9 – 10 am
3 (Lab)	Th 10:30 – 1:20	Alejandro Herrera	alejandro.herrera@sjsu.edu	M 9 – 10 am
4 (Lab)	Th 8:30 – 11:20	Daniel Parker	daniel.parker@sjsu.edu	M 12:30 – 1:30 pm
5 (Lab)	Tu 10:30 – 1:20	Daniel Parker	daniel.parker@sjsu.edu	M 12:30 – 1:30 pm

Course Web Page

Course materials such as syllabus, handouts, notes, assignment instructions, etc. may be found on the *Canvas Leaning Management System course login website at http://sjsu.instructure.com/courses.* You are responsible for regularly logging on Canvas to learn of the updates.

Course Format

This is an online course that has a lab component, which complements lecture. All course activities will take place in our course Canvas site, using the following tools: Zoom, Inbox, Discussion Board, and Announcements. Note: Please access Canvas using Chrome for optimal functionality.

Course Description

Organic compounds produced both in nature and artificially and the reactions they undergo, particularly in the human body. Notes: No credit toward Chemistry major or minor.

Student Learning Outcomes (SLOs)

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

1. SLO 1: Gain a general understanding of nomenclature rules, chemical structure, and chemical properties of organic compounds.
2. SLO 2: Extend the aforementioned principles to biochemistry; which is, for the most part, the organic chemistry of living systems.
3. SLO 3: Understand the role that various biochemicals and their corresponding reactions play in living systems
4. SLO 4: Examine the interrelationships and interdependencies of organic and biochemistry with contemporary society
5. SLO 5: The laboratory section will:
   a) Enhance the lecture portion by providing visual examples of the chemical and physical properties of organic and biochemical compounds.
   b) Allow students to gain some fundamental basics of laboratory techniques.

Texts/Readings

Textbook: *General, Organic, and Biological Chemistry: Structure of Life,* 4th edition*, by* Karen Timberlake. *ISBN: 9780321750891*

For labs, we will be using Labster's simulations. The school has paid for your subscription so you would not have to pay for it out of pocket! This software has already been integrated into Canvas, so there is nothing extra you need to do.

Course Requirements

- Course activities will take place in our course Canvas site, using the following tools: Zoom, Youtube videos, Labster's simulations, Inbox, Discussion Board, and Announcements. Note: Please access Canvas using Chrome for optimal functionality. You will need a laptop or desktop computer with a camera and a reliable access to internet. While the Canvas app for phones can be used for course communication and some basic tasks, you must have access to a computer for completing most coursework. Please note that iPad, iPhone, or Tablets are incapable of running the assigned Labster's simulations. More details are in Resources for Help section.
- You should get into the habit of shutting down and restarting your computer/device at least once a week, even once a day, to optimize performance.

Grading Information

Lecture Exams *(Closed book, closed notes)*
There will be two lecture exams and one comprehensive final exam. Each exam is cumulative, so material covered on a previous exam may be needed for subsequent exams. All exams are closed book, closed notes**,** and will focus on the (1) key concepts, (2) lecture notes, (3) textbook problems, and (4) lab assignments.

All exams are required and will count towards your grade. The final exam is mandatory and cannot be missed. Failure to take the final exam will result in a failing grade. PLEASE PLAN AHEAD FOR YOUR FINAL EXAM. CHECK YOUR SCHEDULE AND MAKE SURE THAT OTHER EXAMS, WORK SCHEDULE, ETC., DO NOT OVERLAP. Make-up exams will NOT be generally given. Accommodations will be made ONLY for VERIFIED illnesses or VERIFIED legitimate emergencies. For other circumstances, please consult with the instructor AT LEAST THREE WEEKS AHEAD of the exam date.

Further notes on Exams: You will need to show your photo ID card to the exam proctors and follow their instructions. You may use a non-programmable calculator and BLANK scratch paper. The final exam will be 2 hours long, and cover everything discussed in class (lecture and lab).

Exam Dates
Exam 1: Monday, March 1st ***Exam 2: Monday, Apr. 12th (100 points each)***

Final Exam (200 points) Monday, May 24th, 7:15 am to 9:30 am

Online Exam Policies (read carefully). If you violate our honor code, you will be reported to the office of student conduct and receive an F for the course

- The exams will be conducted on Canvas during our regular class time.
- You can NOT use online resources, and you are NOT permitted to message or talk anyone while taking this exam.

- You need to be on Zoom while taking the exam, and your camera needs to be oriented so that I can see both hands. One easy way to accomplish this is by logging into Zoom on your phone. The purpose is to minimize cheating. I trust you but it's not fair to everyone if someone decides to cheat. This will also allow you to ask me questions.
- If you are not logged into Zoom and I can't see you while taking the exam, your score will be zero.
- Again, please adjust your camera so I can see both your hands. The best way to accomplish this is to have a side view.
- The Zoom link will be posted on your lab Canvas prior to each exam, and the exam will be recorded.

Laboratory work:

In addition to the Lecture section, you must also attend and complete the work in your lab section. Lab will include a combination of synchronous and asynchronous sessions:

a) All Laboratory experiments will be on Canvas. You will have about 9 lab simulations (each lab is 100 points). You are expected to complete the assigned Labster virtual experiments on Canvas. You can work on these lab simulations at your own pace and time, but make sure you complete them prior to the due date. Late submission will not be accepted. **Do not miss the due dates! You can find the lab simulations on Canvas, under Assignments.**

b) There will be 6 mandatory Zoom meetings for the lab portion of the course; you will meet during your regular lab time. Zoom links will be provided by your lab instructor. The intent of these Zoom sessions is to get you ready for the exams. Lab instructors will provide review worksheets and practice exams and answer questions. We call this "*workday*," and you MUST attend. You will earn 20 points for attending and participating. Not only these are easy points to get, but also help you prepare for the exams. Worksheets for the workdays will be provided by your lab instructor.

Laboratory works account for 40% of total course grade and it includes the following: 20% 'Labster' simulations and 20% 'workday' worksheets.

Please remember that attendance for all workdays is mandatory. Lab instructors will provide Zoom link for these four Zoom sessions. To pass this course, all lab works must be completed. Do not miss labs!!

PLEASE note:

1) **Extra credit work will NOT be provided at the end of the semester for students who are doing poorly. You need to perform well in your tests, lab assignments, and quizzes.**

2) **Bonus points will be given throughout the tests/quizzes. In addition, non-mandatory work such as Lecture Quizzes on Lecture Canvas website and in-class activities will be converted into 3 additional extra credit points toward your exams. This can amount to as much as an extra 5% of the final grade. At the end of the semester, a letter grade will be assigned to you using the scale above without providing additional bonus.**

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.

Determination of Grade

Your course grade will be determined according to the following:

Two in-class lecture exams	30%
Lab*	40%
Comprehensive Final Exam	30%

**Laboratory works account for 40% of total course grade and it includes the following: 20% 'Labster's simulations and 20% 'workday' worksheets.*

Your grades for all the assignments and exams will be posted on your lab canvas. You have only 9 days from the day an exam grade is posted to ask for a regrade. We will not do regrades after nine days have passed.

Missing three labs or more will result in an F for the FULL COURSE, irrelevant of how well you are doing in lecture. Do not miss labs!!

A letter grade will be assigned according to the following percentage scale:

A+ = 100 - 97.0%	A = 96.9 - 93.0%	A- = 92.9 - 90.0%
B+ = 89.9 - 87.0%	B = 86.9 - 83.0%	B- = 82.9 - 80.0%
C+ = 79.9 - 77.0%	C = 76.9 - 73.0%	C- = 72.9 - 70.0%
D+ = 69.9 - 67.0%	D = 66.9 - 63.0%	D- = 62.9 - 60.0%
F = 59.9 – 0%		

Classroom Protocol

- I expect you to check our course Canvas site, at least twice a week, Monday through Friday. I will communicate with the whole class and with you individually using Inbox and Announcements.
- I am limited or unavailable on weekends, unless for urgent matters. If you have any questions or concerns about the course, feel free to send me a message in Canvas or email me. Please expect 24 hours turn-around time.
- You should try your best to attend class during our regular class time (Monday & Wednesday 8:00am – 8:50am) using the ZOOM meeting platform. You will get one extra credit point for your presence in each of the lecture meetings. You are expected to read each chapter in the textbook and/or preview the lecture PowerPoint files or the video lectures posted on Canvas BEFORE attending the lecture on that material.
- Please visit the instructors during office hours if you are having trouble with any of the concepts covered in class. It is recommended and encouraged that the office hours of any instructors involved in Chem 30B (Dr. Tran, Dr. Esfandiari, and all lab instructors) be used for individual help.
- You must obtain permission in advance to record and/or download any course materials. Such permission allows the recordings to be used for your private study purposes only. You will not be

permitted to share any class materials with someone who isn't enrolled in the class or without permission. The recordings are protected by instructor's copyright.

- I understand that factors beyond your control can interfere with your ability to participate. Please let me know if any issues arise, so we can figure out a plan to make sure you succeed in the course.
- As this is a three-unit course with a lab component, you should plan to spend 4-6 hours a week interfacing with the instructors and/or classmates in our class meetings. Other modes of interface time might be attending the instructors' office hours and/or the SI workshops.
- You should plan to spend at least 6-9 hours a week reviewing the class materials, completing homework assignments and quizzes. Success in this course is based on the expectation that you 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.
- Online science courses require that you acquire important skills such as self-discipline, time management, computer knowledge, and excellent math and language skills. Assessments of math and writing skills are particularly important in science courses to determine if you can handle the course requirements. It is also important to assess online skills. One of the good tools to determine readiness for an online course is the Online Learning Questionnaire: http://tutorials.istudy.psu.edu/learningonline/learningonline2.html

Zoom Classroom Etiquette

- For each class session, you should do your best to open simultaneously Zoom and Canvas (split screen on your computer). We will use both online platforms during our class sessions.
- Try to log online to our class meeting from a quiet, distraction-free environment. We have little time together; let's try to maximize it!
- Keep your Audio on mute until you want to speak. We must work together to limit background noise.
- Enable Video so we can see each other as much like in a face-to-face classroom as possible. Especially in exam time, it is required you take the exam on Canvas while logging in Zoom from a second device with the camera ON.
- When you want to speak, use the "Raise Hand" feature (on the bottom left of the Participants window). Be sure to unmute yourself to talk.
- Use the Chat box (on the bottom of the Zoom window) to make a point or ask a question. Remember that Chat is public, and may be recorded, and archived.
- Have a plan for taking notes (paper and pencil, digital notepad, Word/Pages doc). Please note that recordings of our Zoom class sessions will not be saved and posted – unless an incident happens and needs to be documented. So, you should try to capture your thoughts and questions in the moment.

Statement on Safe and Respectful Community:

We hope that the classroom and laboratory 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 classroom or lab is unacceptable. Students exhibiting this behavior will be asked to leave the class. 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) Yelling at classmates and/or faculty.

d) Persistent and disruptive late arrival to or early departure from class without permission.

e) Physical threats, harassing behavior, or personal insults (even when stated in a joking manner).

f) Use of personal electronic devices such as pagers, cell phones, PDAs in class, unless it is part of the instructional activity.

The university has a brochure on student conduct that you can view at http://www.sjsu.edu/studentconduct/docs/ENGLISH%20Brochure.pdf

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. are available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at http://www.sjsu.edu/gup/syllabusinfo/"

Resources for help

1) Dr. Tran and Dr. Esfandiari (Lecture and Lab). Please feel free to send a message in Canvas or email us if you have any questions or concerns about the course.

2) All Lab instructors (Lab predominantly, although some can also provide excellent help for lecture)

3) Tutoring Services:

- Learning Assistant (LA) Program – The following four LAs will serve as embedded tutors and also hold office hours: Jenalyn Halog-Calimquim, Lawrence Li, Danitza Cheline, and Alyssa Cervantes.
- *Peer Connections* – They offer small group, individual, and drop-in tutoring for a number of undergraduate courses, consultation with mentors is available on a drop-in or by appointment basis. Visit Peer Connections website at http://peerconnections.sjsu.edu for more information.
- *COSAC* – The College of Science Advising Center is located on the second Floor of Duncan Hall, DH 213. They have peer advisors and tutors. Check their schedule at https://www.sjsu.edu/cosac/tutoring/

4) *SJSU CARES* provides a wide range of services to students having food and housing insecurity. Check for more information at: https://www.sjsu.edu/sjsucares/

5) *ASPIRE* – Student Services Center – Services are limited to low income, first generation college students or students with disabilities.

5) *SJSU Writing Center* – The SJSU Writing Center is located in Clark Hall, Suite 126. In addition to one-on-one tutoring services, the Writing Center also offers workshops every semester on a variety of writing topics. To make an appointment or to refer to the numerous online resources offered through the Writing Center, visit the Writing Center website at http://www.sjsu.edu/writingcenter.

6) Student Health Center: 408-924-6122 or https://www.sjsu.edu/studenthealth/

6) *Counseling Services* - Professional psychologists, social workers, and counselors are available to provide consultations on issues of student mental health, campus climate or psychological and academic issues on an individual, couple, or group basis. To schedule an appointment or learn more information, visit Counseling Services website at http://www.sjsu.edu/counseling.

7) *Career Center*: http://www.sjsu.edu/careercenter/

8) *Accessible Education Center*. If you feel that you are unable to keep up with the class even though you have all the prerequisites; if you are spending ample time studying yet you never have time to finish

exams and quizzes and/or if this class, for some reason, is testing your abilities to learn, you might consider paying a visit to the Accessible Education Center, ADM 110. They might be able to test you to determine whether you have a learning disability.

9) For technical support, please contact eCampus: https://www.sjsu.edu/ecampus/ , (408) 924-2337

10) Student Computer Services Loans: Please note that your computer should meet the following requirements. If you need to check out a laptop computer for your studies, please visit this site: https://library.sjsu.edu/student-computing-services/student-computing-services

- **Processor:** Dual core 2 GHz or higher
- **Memory:** 4 GB or more
- **Graphic card:** Intel HD 3000 / GeForce 6800 GT / Radeon X700 or higher
- **OS:** Latest version of Windows (64-bit) or Mac OS or ChromeOS
- **Supported browsers:** Latest version of Firefox and Chrome
- A **stable** internet Connection

Requirements for Chromebook: Look especially for the amount of memory (**minimum 4GB SDRAM**) and processor speed (**minimum dual-core 2 GHz CPU**).

We hope that you will find this course to be an intellectually stimulating and pleasant learning experience. Best wishes to your SUCCESS in Chemistry!

Tentative Course Schedule (Changes would be announced in class at least one week ahead)

Date	Lecture Schedule	Lab Schedule and Due Dates	Due assignments
Week 1 1/27-1/29	Orientation Chapter 11: Intro to Organic Chemistry Alkanes	No lab Organic Chemistry Introduction: Learn about organic compounds	
Week 2 2/1-2/5	Chapter 11 (cont'd)	***Workday 1***: Intro, Attendance	
Week 3 2/8-2/12	Chapter 12: Alkenes and Alkynes	*Lab 1*: Lab Safety (***Labster***) *Lab 2*: Chemistry Safety (***Labster***)	Lab 1 & 2 (due on 2/12)
Week 4 2/15-2/19	Chapter 12 (cont'd)	***Workday 2***: Naming Worksheet *Lab 3*: Hydrocarbon Nomenclature and Representations (***Labster***)	Lab 3 (due on 2/19)
Week 5 2/22-2/26	Chapter 13: Alcohols, Phenols, Thiols, & Ethers	***Workday 3***: Exam I Review Session	
Week 6 3/1-3/5	**Monday Exam I (3/1/20)** Chapter 14: Aldehydes & Ketones	*Lab 4:* Functional Groups and Basic Chemical Tests (***Labster***)	Lab 4 (due on 3/5)
Week 7 3/8-3/12	Chapter 14 (cont'd) Chapter 15: Carbohydrates	*Lab 5:* Organic chemistry Reactivity Rules: Time to react! (***Labster***)	Lab 5 (due on 3/12)
Week 8 3/15-3/19	Chapter 15 (cont'd)	***Workday 4***: Carbohydrates Worksheet	
Week 9 3/22-3/26	Chapter 15 (cont'd) Chapter 16: Carboxylic Acids & Esters	*Lab 6:* Electrophilic Addition: Explore reactions of hydrocarbons (***Labster***)	Lab 6 (due on 3/26)
Week 10 3/29-4/2	**Spring Break**	***Spring Break***	
Week 11 4/5-4/9	Chapter 16 (cont'd)	***Workday 5***: Exam II Review Session	
Week 12 4/12-4/16	**Monday Exam II (4/13/20)** Chapter 17: Lipids	*Lab 7:* Nucleophilic substitution Reaction: Alkyl halide substrates (***Labster***)	Lab 7 (due on 4/16)
Week 13 4/19-4/23	Chapter 17 (cont'd)	***Workday 6***: Aspirin synthesis	
Week 14 4/26-4/30	Chapter 18: Amines & Amides	*Lab 8:* Carbohydrates: The sugars that feed us (***Labster***)	Lab 8 (due on 4/30)
Week 15 5/3-5/7	Chapter 19: Proteins and Amino Acids	*Lab 9:* Protein Synthesis (***Labster***)	Lab 9 (due on 5/7)
Week 16 5/10-5/14	Ch.19 (cont'd) Review	***Workday 7***: Practice Exam Review Session	
Week 17 5/17-5/21	Monday May 17-last day of class **Final Exam: Monday May 24, 2021, 7:15 – 9:00 am (All chapters covered)**		

Lab will include a combination of synchronous and asynchronous sessions:

1) All Laboratory experiments *(**Labster***) will be on Canvas. You can work on these lab simulations at your own pace and time, but make sure you complete them prior to the due date. Late submission will not be accepted. Do not miss the due dates! You can find the lab simulations on Canvas, under Assignments.
2) ***Workdays*** are mandatory Zoom meetings, and you will meet during your regular lab period. Zoom links and worksheets will be provided by your lab instructor. You MUST attend. You will earn points for attending and participating.