



Chemistry 131 Syllabus
Introduction to Organic/Biochemistry • 6 CR
Winter 2022 (Jan 3 – Mar 23)

Instructor: Dr. Sandrine Hocdé

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Office: [Sandrine Hocde's Personal Meeting Room](#) <https://bellevuecollege.zoom.us/j/8936724992>

Office hours: I will be available before or after each class meeting (MWF). In addition, you may ask for one on one meetings through zoom. Don't hesitate to make an appointment by e-mail !

Class meetings via Zoom:

<https://bellevuecollege.zoom.us/j/85332971314?pwd=MjZQWTAwaDhoR3hzZnF4WEpPazNVZz09>

Password: 033273

Lecture MW	10:30am – 12:20pm	Zoom meeting Room
Laboratory F	10:30am – 1:20pm	Building S 314 or 324

Required Books and Materials:

1. Textbook: General, Organic, and Biological Chemistry, 6th ed., Karen C. Timberlake. Students have Inclusive Access (labeled "IA Course Materials") in this course on Canvas (*see last page of this Syllabus*). CHEM&131 includes Chapters 12-21.
2. Access to Course Website on CANVAS (for Powerpoints, class activity worksheets, labs, homework). You may choose to download or print some of the documents.
3. A notebook with sections for Lecture note-taking, Workspace for Class Activity problem solving, for Homework and for Labs. Laboratory reports will be handed in on paper.

Course Information

Course prerequisite: Completion of CHEM& 121 or higher level chemistry with C(2.0) or better, or permission of instructor.

Course Description: Presents organic chemistry and biochemistry, with emphasis on functional groups, reaction synthesis, and biochemical applications. Format includes lecture, discussion, and laboratory.

Course Outcomes: After completing this class, students should be able to:

1. Define organic chemistry in terms of the role of carbon in organic and biological chemistry.
2. Identify and classify major organic functional groups and recognize their presence in biological molecules.
3. Predict the physical properties and reactivities of organic compounds based on their structure.
4. Name and draw the structure of organic compounds, including isomers.
5. Define and recognize the different types of isomerism, including geometric, stereo, and constitutional.
6. Explain the importance of molecular shape in terms of function and properties.
7. Recognize structural differences between various types of biomolecules, such as lipids, carbohydrates, nucleic acids, and proteins, and identify their basic building blocks.
8. Describe the biological relevance of organic macromolecules and apply chemical concepts relevant to health and medicine.
9. Explain how recrystallization, extraction, and chromatography are used for separation and purification of organic mixtures.

How course outcomes will be met:

This course will cover chapters 12 to 21 in the textbook by Timberlake. Students will be introduced to a variety of topics in organic and biological chemistry through a combination of lectures, labs, and class activities. We will also conduct some laboratory experiments and complete worksheets. Homework assignments and exams will be given in order to reinforce the concepts presented in class. There will be two exams and a final exam. This is an interactive class and will involve group work.

Evaluation and Grading:

The course grade will be determined by accumulating points in the following categories homework, class activities, presentations, prelab quizzes, labs activities, and exams.

Homework: Homework is a very important part of this course in order to fully understand the concepts of each chapter. It will allow you to practice your chemical skills on your own and it must be completed on time to be prepared for the lectures. Homework will be completed on Canvas.

Class activities: Class activities are practice problems that will be solved during class with the possibility to finish after class time. Students will have to compare their work to the solutions provided afterwards to get full credit. These class activities will be graded based on effort and completeness rather than correctness.

Presentations: Each student will present a *Chemistry Link to Health* topic once in the quarter. The presentation must last at least 2 minutes up to 5 minutes. Presentations will be planned and scheduled but can occur at any time during a lecture or lab meeting. Students will prepare their PowerPoint slides or any other support they want to use.

Laboratory assignment: This quarter we will do **seven labs**. The laboratory is an integral part of the course, and you cannot pass the course without completing (performing, writing, and submitting) the assigned laboratory experiments.

All labs will occur **in person**. A lab document will provide a procedure to read, with experimental details and steps needed to complete the lab. A Prelab Quiz will test your reading and understanding of the lab procedure and will be due at the beginning of the class on Lab day. Videos may accompany some labs and be viewed during lab class time. Specific directions for your lab report will be given for each lab experiment.

Using the part of your notebook dedicated for labs, will allow you to be more organized by taking notes to prepare for upcoming prelab quizzes and lab experiments. During an experiment, you will use it to record data and observations necessary to complete lab reports that explain your results.

Exams There will be **two exams** on the dates given in the course schedule. The material tested in Exam 1 will be the chapters covered from the beginning up to Exam 1. The material tested in Exam 2 will be the chapters covered from Exam 1 up to Exam 2. **Missed exams cannot be made-up.**

Final exam **The final examination is cumulative**, which means it will test for the material covered in the entire quarter.

Assigned Points (subject to change):		
Homework, Class Activities	~140 points	25%
Prelab Quizzes (8x ~5pts), Laboratory Reports (7x ~10pts)	~110 points	20%
Exams (2x 100 points each)	200 points	55%
Final Exam	100 points	
Total	~550 points	100%

**Grade Points
(subject to change)**

<u>Min. %</u>	<u>Letter grade</u>
94	A
90	A ⁻
86	B ⁺
82	B
78	B ⁻
74	C ⁺
70	C
66	C ⁻
62	D ⁺
58	D

Students who have an average of 58% or below will receive a failing grade (F). Students who stop or never attend this class and do not formally withdraw will receive a failing grade (F) for this course.

Course Calendar

Tentative Course Outline and Test Schedule

Week	Dates	Chapter Reading Assignments	Laboratory or Exam (Fri)
1	Jan 3 – 7	Ch 12: Basic Organic Structure and Functional Groups	Introduction. Lab Safety
2	Jan 10 – 14	Ch 12: Reactions of Alkanes, Alkenes, Alkynes and Aromatic Compounds	Molecular Models lab
3	Jan 17 – 21 Jan 17 – no classes (Mon)	Ch 13: Alcohols, Ethers, Properties and Reactions	Physical Properties, Density Lab
4	Jan 24 – 28	Ch 14: Aldehydes, Ketones, their Properties and Oxidation and Reduction, Hemiacetals and Acetals	Exam #1 (Ch 12, 13): Friday, Jan 28
5	Jan 31 – Feb 4	Ch 15: Carbohydrates	Analysis of Functional group using Infrared (IR) spectroscopy
6	Feb 7 – 11 Feb 10 – no classes (Thurs)	Ch 16: Carboxylic Acids, Esters, Properties	Aspirin Lab
7	Feb 14 – 18	Ch 17: Lipids	Exam #2 (Ch 14, 15, 16): Friday, Feb 12
8	Feb 21 – 25 Feb 21 – no classes (Mon)	Ch 18: Amines, Amides, Properties and Reactions.	Soap Lab
9	Feb 28 – Mar 4	Ch 19: Amino Acids and Proteins, Structures, Hydrolysis and Denaturation	Caffeine Lab
10	Mar 7 – Mar 11	Ch 20: Enzymes	Paper Chromatography Lab
11	Mar 14 – 18 Mar 18 – no classes (Fri)	Ch 21: Nucleic Acids, DNA replication, RNA and transcription, Protein Synthesis.	Student Success Day
12	Mar 21 – 23	Review chapters 12-21 and all completed labs	Final Exam: Wednesday, Mar 23, 9:30am-11:30am

Academic Calendar

The Bellevue College [Academic Calendar](https://www.bellevuecollege.edu/studentcentral/calendar/)

(<https://www.bellevuecollege.edu/studentcentral/calendar/>) provides information about quarter end and start dates, final exam dates, important enrollment dates such as admissions and registration dates and important dates for withdrawing and receiving tuition refunds, holidays, and scheduled closures.

Students with special needs

The Disability Resource Center serves students with disabilities. Common disabilities include physical, neurological (e.g. Autism, ADD/ADHD), and mental health (e.g. depression, anxiety). If you are a student who has a disability or if you think you may need accommodations in order to have equal access in your classes, programs, activities, and any other services, please contact the DRC.

The DRC office is located in building U Room 001. You can contact the DRC by stopping by the office at U001, calling our front desk phone number (425) 564-2498, emailing drc@bellevuecollege.edu. Deaf students can reach us by calling TTY: (425) 564-6189. For more information about the services we offer, including our Initial Access Application, visit our website at [Disability Resource Center](http://www.bellevuecollege.edu/drc) (<http://www.bellevuecollege.edu/drc>).

In addition, students are encouraged to review their accommodation requirements with each instructor during the first week of the quarter.

If you are a student with a documented autism spectrum disorder, there is an additional access program available to you called [Neurodiversity Navigators](https://www.bellevuecollege.edu/autismspectrumnavigators/). Location on Campus, email and phone number are on the web page [Neurodiversity Navigators](https://www.bellevuecollege.edu/autismspectrumnavigators/) (<https://www.bellevuecollege.edu/autismspectrumnavigators/>).

How to be successful in this course

- Spending at least 2 hours of study for each lecture hour.
- Keep up with homework assignments. Homework assignments are the best way to practice your chemical skills.
- Read the textbook material and outline the text before coming to the lecture. Summarize the material. Read it again after discussion.
- Try to work the problems in the study check within the lectures, do not wait for the answer.
- Take notes, write down new terminology, definitions, molecular formulas, main concepts.
- Ask questions during lectures and laboratory, email questions between classes, ask for an office hour.
- Check for help in tutorial assistance available in [Academic Success Center](https://www.bellevuecollege.edu/asc/tutoring/e-tutoring/online-tutoring-options/) D204 at (<https://www.bellevuecollege.edu/asc/tutoring/e-tutoring/online-tutoring-options/>)
- Form study groups.
- Study every day. Practice - key to success in this course!

Best wishes for a successful quarter!

Student Code of Conduct and Academic Integrity

Any act of academic dishonesty, including cheating, plagiarism (using the ideas or words of another as one's own without crediting the source), and fabrication, and inappropriate/disruptive classroom behavior are violations of the Student Conduct Code of Bellevue College. Examples of disruptive behavior include, but are not limited to, repeatedly talking out of turn, arriving late or leaving early without a valid reason, allowing cell phones to ring, and inappropriate behavior toward the instructor or classmates. The instructor can refer any violation of the Student Conduct Code to the Manager of Student Conduct for investigation. Specific student rights, responsibilities, and appeal procedures are listed in the Student Conduct Code at: [Student Code](#)

Division Policy on Cheating

You, the student, are expected to conduct yourself with integrity. If you cheat*, or aid someone else in cheating, you violate a trust. If you cheat, the following actions will be taken:

1. You will receive a grade of 0 on the work (exam, assignment, lab, quiz, etc.), where the cheating occurred. This grade cannot be dropped.
2. A report of the incident will be sent to the Dean of Students. The dean may file the report in your permanent record or take further disciplinary action such as suspension or expulsion from the college.

If you feel you have been unfairly accused of cheating, you may appeal. (For a description of due process see WAC 132H-120 and/or the Student Handbook)

*Cheating includes, but is not limited to, copying answers on tests or assignments, glancing at nearby test papers, swapping papers, stealing, plagiarizing, lying, use of electronic information storage or communication devices to store or share answers and illicitly giving or receiving help on exams or assignments.

Affirmation of Inclusion

Bellevue College affirms the diversity of human identities and experiences and is committed to creating spaces free from harassment and discrimination (4000 Institutional Commitment to Inclusion). Furthermore, Bellevue College rejects all forms of racism, homophobia, sexism, xenophobia, religious intolerance, classism, ableism, ageism, language bias, and hate speech or actions that attempt to silence, threaten, or degrade others.

In classroom settings, we might disagree with views shared in the classroom; however, courteous, and respectful behavior and responses are always expected. When providing criticism, it is important to focus on the ideas and not the person.

Faculty are encouraged to disrupt and address hate speech and behaviors. Students are also encouraged to speak up and advocate when they experience, or witness hate speech and behaviors. Faculty, staff, and students also are encouraged to submit a report to the CARE

Team regarding any concerns of discrimination, harassment, or inappropriate and disrespectful conduct. [Affirmation of Inclusion](https://www.bellevuecollege.edu/policies/id-4000/) (https://www.bellevuecollege.edu/policies/id-4000/)

Reasons of Faith and Conscience

Reasonable Accommodations for Reasons of Faith and Conscience: Students who will be absent from course activities due to reasons of faith or conscience may seek reasonable accommodation so that grades are not impacted. Such requests must be made within the first two weeks of the course to the office of the Associate Vice President of Student Affairs (see Bellevue College [Policy 2950](https://www.bellevuecollege.edu/policies/id2950/) (https://www.bellevuecollege.edu/policies/id2950/)). In

the event you feel you are being discriminated against based on faith or conscience, you may refer to the procedures outlined in the college's [Discrimination, Harassment and Retaliation Policy 1440P](https://www.bellevuecollege.edu/policies/id-1440p/) (<https://www.bellevuecollege.edu/policies/id-1440p/>).

Annual Notice Non-Discrimination

Bellevue College does not discriminate on the basis of race or ethnicity; creed; color; national origin; sex; marital status; sexual orientation; age; religion; genetic information; the presence of any sensory, mental, or physical disability; or veteran status in educational programs and activities which it operates. Bellevue College is prohibited from discriminating in such a manner by college policy and by state and federal law. All college personnel and persons, vendors, and organizations with whom the college does business are required to comply with applicable federal and state statutes and regulations designed to promote affirmative action and equal opportunity.

Reports of gender and sex-based based discrimination, sexual misconduct, or retaliation by a student should be raised with the Title IX office (see 1440P2 for contact information). In cases where the impacted party is a student and the responding party is a college employee, the Title IX coordinator will direct the matter to the Office of Human Resources (HR). All other reports, including all reports where the impacted party is an employee, should be raised with the HR. If a report is against personnel in the Title IX office or HR, it should be submitted to the president's office for referral to an alternate designee. [Equal Opportunity](http://www.bellevuecollege.edu/equal/) (<http://www.bellevuecollege.edu/equal/>)

Accessibility

The elements of this course are designed to be welcoming to, accessible to, and usable by everyone, including students who are English-language learners, have a variety of learning styles, have disabilities, or are new to online learning. Be sure to let me know immediately if you encounter a required element or resource in the course that is not accessible to you. Also, let me know of changes I can make to the course so that it is more welcoming to, accessible to, or usable by students who take this course in the future.

Additional Information

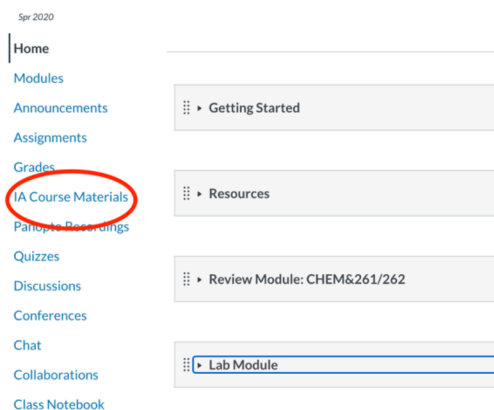
A note about accessing Canvas from the People's Republic of China: some users have reported that they do not have full access to all Canvas functionality from within the People's Republic of China. This appears to be due to Canvas' parent company, Instructure, not fully committing to Chinese government requirements regarding internet operations within the country. The Chinese government does not inform foreign entities of their policy updates; therefore, Bellevue College cannot anticipate access to Canvas. If you will be in China during the quarter, you should prepare for intermittent and uncertain access to Canvas. Source: [Access to Canvas in China](https://support.canvas.fsu.edu/kb/article/1157-access-to-canvas-in-china/) (<https://support.canvas.fsu.edu/kb/article/1157-access-to-canvas-in-china/>)

What is Inclusive Access?

Inclusive access (labeled “digital content” in the class schedule) means students pay for digital course materials at the time of tuition. Often these materials are lower cost than paper copies and may come with access to the solutions manual and/or online homework (such as Mastering Chemistry). Since access is paid with tuition, it ensures students have the materials on Day 1 of class. This will help students succeed so they don’t fall behind waiting for textbooks to arrive.

How do I access the digital content?

You will be able to view the digital content through Canvas. For the digital textbook, there is a link in the left-hand menu of your canvas page called “IA Course Materials”. If you also have the Mastering Chemistry online homework system, you will see a “MyLab and Mastering” link as well.



What if I don’t want or need Inclusive Access digital content?

If you prefer another format (like hardcover, paperback, etc.) or already have the course materials, or if the materials are optional and you don’t think you will need them, you may “opt-out”. Usually this means you get almost a full refund (minus some processing fees). You must opt-out within 14 days of the quarter (10 business days). To opt-out, go to the BC Bookstore website, and select the course and instructor. In the textbook option you will see a small box on the upper left labeled “opt-out”. If you had paid, you will be able to select this box.

If you have any issues with this, contact your instructor asap.

FROM CHEM 161& (3313 - DOUCETTE S)

CHEMISTRY: STRUCT & PROP E-TEXT W/MMC

AUTHOR: TRO
 ISBN: 9780135368954
 STATUS: REQUIRED

INCLUSIVE ACCESS MATERIAL

\$45.45

X OPT-OUT

ABOUT THIS PROGRAM
 Your e-textbook has been paid with tuition and saved you delivery, do nothing. The e-text will appear on Canvas on I

ABOUT THIS MATERIAL
 The course materials listed for this class have already been