

# Syllabus for CHEM& 140 General Chemistry Preparation w/Lab Fall 2021 Section C #3301 and Section D #3303

## Instructor

- Name: Dr. Gina Fiorini (Please call me Gina or Dr. Fiorini or Dr. G)
- Main contact methods:
  - Use the Teams discussion boards to post general questions about class content, online sessions, or assignments.
  - Use Teams to send instant messages or phone/video calls for individual help.
  - You may also use your Canvas inbox to email me but this is not checked as frequently as Teams.
- College Email: [gina.fiorini@bellevuecollege.edu](mailto:gina.fiorini@bellevuecollege.edu) (For after the quarter is over.)
- Office location: S340A (Not on campus this quarter!)
- Office phone: 425.564.2095 (Connected to my computer via Teams. You may leave a voicemail for me at this number.)
- Office hours: online via Teams Tuesday and Thursday 12:30-2:30pm, or contact me in Teams for an individual meeting (impromptu or we can schedule in advance).

## General Course Information

CHEM& 140 assumes no previous chemistry knowledge. Students who plan to take CHEM& 161 should take CHEM& 140 instead of CHEM& 121 if possible. Students who've had chemistry in high school should consider taking the CHEM& 161 placement exam. For placement exam information, go to <https://www.bellevuecollege.edu/chemistry/chem161placement/>.

Credits: 6

Prerequisite: MATH 099 with a C or better, or placement into MATH& 141 or higher.

### Course Description:

Preparatory chemistry for science and engineering majors intending to take the general chemistry series (161/162 /163). Topics include: atomic structure, stoichiometry, solutions, bonding, acids-bases, and oxidation-reduction. A quantitative approach and problem solving is emphasized.

### Course Outcomes:

After completing this class, students should be able to:

- Define chemistry as a scientific study of matter and its transformations and the scientific method as a way to acquire knowledge.
- Apply precision, accuracy, and safe lab practices in taking measurements in support of scientific observation.

- Develop problem-solving skills related to unit conversions, stoichiometric quantification of chemical reactions, and solution chemistry.
- Extract information about an element from the periodic table: for example; the symbol, atomic number, atomic weight, and the number of protons and electrons.
- Identify the relationship between the position of an element on the periodic table and its atomic structure and physical/chemical properties.
- Explain the concept of the mole and molar mass and how they relate to balanced chemical reaction equations.
- Write the formulas and names for ionic and covalent compounds using the Periodic Table.
- Describe the structure and properties of matter based on ionic/covalent bonding and intermolecular forces.

Course outcomes will be met through assignments, laboratory experiments, and exams.

Detailed Learning Objectives: See list of Student Learning Objectives included at the beginning of the CHEM& 140 Workbook.

## Online Course Instruction due to COVID-19

CHEM& 140 is typically offered as an on-campus course with face-to-face class sessions and weekly experiments in the chemistry laboratory. However, due to the COVID-19 pandemic, this class will be offered fully online with online laboratory simulations to mimic the typical hands-on chemistry experiments. The class will be offered asynchronously for delivery of course content, work on individual and group homework assignments, online laboratory simulations, and assessments. There will also be optional synchronous online class sessions to check in with students, practice problem solving together, and review requested course content.

### Optional Online Class Sessions – Meetings Every Tuesday, Thursday, and Friday at 11:30am via Teams

Each week there will be three class sessions offered using Teams. Link to join the Team sessions is posted at the top of the Course Orientation module. Two of these online class sessions will review class content and homework problems, and these will align with the two Checkpoints for each week. In the third session, we will be able to answer questions about labs, review, or practice problem solving together.

### Asynchronous Work – At Your Own Pace, Complete by Due Dates

The course content will be split into five major sections, each of which ends with a quiz, and then a comprehensive final exam at the end of the quarter.

The course is structured/organized in Canvas under Modules. There is a module for each of the five major sections, called Module 1, Module 2, etc.

Each Module is further divided into smaller subtopics called “Checkpoints”. Each Checkpoint contains:

- Learning objectives and Study Resources
  - A list of what you need to know how to do (learning objectives)
  - Textbook sections to read
  - Class notes (used in Dr. G's recorded lectures)

- Videos to watch that cover the content and skills
  - YouTube videos carefully curated by Dr. G
  - Dr. G's recorded lectures from previous quarters
- Assignments to Complete
  - Online HW set – homework set completed in the online system called "Chem101" to get instant feedback on your mastery of the skills
  - "Show It" HW set – homework where you will collaborate with your group to show your work on calculation problems, and make drawings/sketches, and answer short answer problems – things that are hard to do in the OnlineHW sets.
  - Lab – an online simulation or video of a laboratory experiment (not all Checkpoints have labs, approx. 1 per week)
- After every four Checkpoints you will take a Quiz

### Be Flexible and Ready to Adapt!

The plans outlined above for a mixture of synchronous and asynchronous online learning for the course are what I hope will work best for everyone in the course for the whole quarter. However, I am open to changing approaches in the middle of the quarter, if indicated by student feedback or if I notice that successful learning is not being adequately supported by the current plans.

## Course Grading

### Breakdown by course components:

Assessments 50% 5 quizzes and 1 comprehensive final exam

Assignments 50% homework sets, lab report sheets, group work, other assignments, etc.

### Letter grade based on overall course %:

A = 93+; A – = 90–92; B+ = 87–89; B = 83–86; B – = 80–82;

C+ = 77–79; C = 73–76; C – = 70–72; D = 60 – 69; F < 60 The minimum % in each range guarantees that letter grade.

### Bellevue College Grading Policy:

More information on college grading policies and procedures can be found here: [Grading Policy](#)

### Late Work:

- Lab reports and assignments may be turned in late at a penalty of 5% off per day.
- The late policy will be applied to assignments due starting in Week 2 of the quarter, giving a grace period for Week 1 as everyone gets settled into the start of the quarter.

### Drop Scores:

- Final exam score may replace a lower quiz score or a missing quiz score.
- Two of your lowest assignment scores will be dropped from your course grade.
- The Canvas gradebook will automatically handle these drop scores and replacement scores.

## Course Materials

- **Course Canvas site** – Follow the link to Canvas on the Bellevue College homepage or go directly to Canvas at [Canvas](http://bc.instructure.com) (<http://bc.instructure.com>). Use your BC NetID username and password to log in. Select this chemistry course under your listed courses. If you need extra help getting started with Canvas in general, go here for [Canvas Training for Students](#).
- **Textbook** – When you registered for this course, you paid for access to the online homework system, MasteringChemistry, and the electronic version of the textbook, *Introductory Chemistry*, 6<sup>th</sup> edition, by Nivaldo Tro, published by Pearson. If you would like a loose-leaf paper copy of this textbook, you may purchase it for about \$30-40 through the BC Bookstore. You will likely be able to find used copies of older versions of this textbook for fairly cheap online, so that's another option for a physical textbook. If you find a different edition than the 6<sup>th</sup> edition, the chapter numbers may be different, but the chapter/section names will be very similar, and you can always use the Table of Contents or Index to find things.
- **"Chem101" Online Homework System** – We will be using the "Chem101" online platform (direct website: 101edu.co) for online homework sets and possibly in-class activities. Access is already connected through our Canvas site. When you first click on an assignment in Canvas you will be directed to register and automatically connected to our class assignments. Scores are synced to Canvas and displayed in the Canvas gradebook. There is a two-week free trial to enable quick access at the beginning of the quarter; after the two-week trial ends you will be asked to purchase access for approximately \$20-25 for the quarter. You may complete the purchase through the "Chem101" site or through the BC Bookstore (this may be better for financial aid students).
- **Scientific calculator** – You need a basic scientific calculator capable of exponents and logarithms. I recommend the Texas Instruments TI-30XIIS. You may also use a graphing calculator.
- **(Optional) CHEM& 140 Workbook** – A book of worksheets, activities, and laboratory experiments written by BC Chemistry Department faculty. Hard copies are sold by the BC bookstore and ship for free.

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*The remainder of this syllabus is standard college policies and campus resources.*

## 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.

## Science 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 Student Success. 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.

## College Policies

### ***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 Code of Conduct at Bellevue College. Examples of unacceptable behavior include, but are not limited to, talking out of turn, arriving late or leaving early without a valid reason, allowing cell phones/pagers to ring, and inappropriate behavior toward the instructor or classmates. The instructor can refer any violation of the Student Code of Conduct to the Dean of Student Success for investigation. Specific student rights, responsibilities, and appeal procedures are listed in the Student Code of Conduct at: [Student Code](#)

### ***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](#)

### ***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](#).

### ***Annual Notice of 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 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](#)

### ***Confidentiality and Mandatory Reporting***

As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. 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 information you share private to the greatest extent possible. However, I am required to share with the Title IX Coordinator any and all information regarding sexual assault and other forms of sexual misconduct (e.g. relationship violence, stalking) that may have occurred on campus or that impacts someone on campus. Students may speak to someone confidentially by contacting the BC Counseling Center at (425) 564-2212. The Title IX Office can be contacted at 425-564-2641 and more information can be found at [Title IX](http://www.bellevuecollege.edu/titleix/) (<http://www.bellevuecollege.edu/titleix/>).

If you have any concerns, you may report to: [Report Concerns](#)

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### ***Student Conduct Code 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](#)

## **College Resources**

### ***Network and E-mail***

All students registered for classes at Bellevue College are entitled to a network and e-mail account. Your student network account can be used to access your student e-mail, log in to computers in labs and classrooms, connect to the BC wireless network, and log in to Canvas. To create your account, go to: [Create Email](#) BC offers a wide variety of computer and learning labs to enhance learning and student success. Find current campus locations for all student labs by visiting the [Technology Help Desk](#)

### ***Help with Canvas***

Students can find help with Canvas by following the link here: [Student Canvas Help](#)

### ***Disability Resource Center (DRC)***

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.

If you require assistance in an emergency, please meet with your individual instructors to develop a safety plan for while in class and contact the DRC to develop a safety plan for while you are elsewhere on campus.

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](mailto:drc@bellevuecollege.edu). Deaf students can reach us by calling TTY: (425) 564-6189, or by Skype (account name **DRCatBC**). 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>).

Service Animals are allowed in this classroom. Emotional Support Animals need to be approved through the DRC. All other animals will be asked to leave. If you believe you need your animal with you, please connect with the DRC and refrain from bringing your animal until a decision has been made.

### ***Public Safety and Emergency Procedures***

Public Safety is located in the B building (B132) and can be reached at **425-564-2400** (easy to remember because it is the only office on campus open 24 hours a day—2400). Among other things, Public Safety serves as our Parking Permits, Lost and Found, and Emergency Notification center. Please ensure you are signed up to receive alerts through our campus alerting system by registering at [RAVE Alert Registration](#)

If you work late and are uneasy about going to your car, Public Safety will escort you to your vehicle. To coordinate this, please phone ahead and let Public Safety know when and where you will need an escort.

Please familiarize yourself with the emergency postings by the door of every classroom and know where to go in the event of an evacuation. Your instructor will be asked if anyone might still be in the building, so check in before you do anything else. Emergency responders will search for anyone unaccounted for.

If a major emergency occurs, please follow these three rules:

1. Take directions from those in charge of the response - We all need to be working together.
2. Do not get in your car and leave campus (unless directed to) - Doing so will clog streets and prevent emergency vehicles from entering the scene. Instead, follow directions from those in charge.
3. In an emergency, call 911 first, then Public Safety.

Please do not hesitate to call Public Safety if you have safety questions or concerns at any time. You may also visit the [Public Safety](#) web page for answers to your questions.

### ***Report Concerns on Campus***

If you feel threatened or see something that may indicate trouble, please report it right away at [Report Concerns](#). We all need to help keep our campus safe for everyone.

### ***Labs and Services***

- [Writing Lab](#) (Academic Success Center)
- [Math Lab](#) (Academic Success Center)
- [Academic Tutoring](#) (Academic Success Center) (Students earning a C or lower are eligible for free one-on-one tutoring. Go to the ASC Center to sign up and bring me the sheet to sign.)
- [MCS – Multicultural Services](#)
- [TriO](#)
- To find additional student resources, go to: [Campus Services](#) (bellevuecollege.edu/resources/)

### ***College Calendars***

- [Enrollment Calendar](#) (registration, withdrawal, and tuition dates)
- [College Calendar](#) (start/end dates, holidays)
- [Final Exam Schedule](#) (look up your final exam day/time for any class)