

# Course Syllabus



## CHM1045C General Chemistry I CRN14817

### Course Description

CHM1045 presents a study of the basic principles of chemistry including chemical reactivity, atomic structure, chemical bonding, molecular geometry, periodicity, stoichiometry, and kinetic-molecular treatment of gases. The course consists of two parts: a laboratory and the class. While the class help the students learn these main principles, the laboratory is essential in illustrating the principles discussed in classroom.

**NOTE:** This class is offered in a mixed mode format (hybrid). The course meets for laboratory only while the lecture portion is an online course. There is no actual lecture. The professor will hold some recommended (voluntary, but encouraged attendance) some shared Zoom sessions to facilitate the learning of some of the course outcomes. However, these sessions are not a substitute to a lecture and the course will require a great deal of self study.

### Course Prerequisites

CHM 1025C or one year of high school chemistry with a minimum grade of C; and MAC 1102 or MAC 1105 or two years of high school algebra or an appropriate score on an approved mathematics assessment.

### Professor's Contact Information

Dr. Diego J. Díaz

The best way to contact me is via the Canvas Inbox tool. I will respond within one business day and often sooner! **Please note that as we all try to manage work/school and life working from home I may not be able to answer "last minute" emails sent during non-working ours.**

Other contact methods: [ddiazlopez@valenciacollege.edu](mailto:ddiazlopez@valenciacollege.edu) (<mailto:lsessions@valenciacollege.edu>)/407-582-1718 (The phone number is my office at Valencia's West Campus, the student must leave a voicemail for me to retrieve).

**Meeting Times: W 1:00 PM - 3:45PM AHS 304 (Laboratory)**

Shared Office Hours via Zoom: M, R 10:30AM - 12:00PM (I plan to answer any questions from students and will cover some of the most challenging topics in the sessions in order to moderate the discussion. The topic to be discussed will be sent on the email invite. The sessions are not a formal lecture and the students are responsible to study the material on their own.). These sessions will be recorded and the recording provided to students unable to attend or that want to revisit. No session will be recorded if there are no attendees or if there is a single attendee as it turns into an individual meeting.

**Individual Office Hours via email/Canvas Inbox or by Zoom (student request individual meeting/appointment) M, W, R: 9:00AM - 10:00AM, T: 11:00AM - 12:00PM, F: 9:00AM-12:00PM**

\* As we navigate these times of uncertainty, please email to schedule the Zoom individual meetings (make an appointment with me). If a student can't make the scheduled times, then a I will do my best to arrange an alternate time.

### Required Texts and Materials

- Chemistry 2e. (ISBN-10: 1-947172-61-1), OpenStax (Open Educational Resource book – “free” available at: <https://openstax.org/details/books/chemistry-2e> (<https://openstax.org/details/books/chemistry-2e>)). A printed version can be purchased from Amazon or the bookstore (ISBN-10: 1-947172-62-X or ISBN-13: 978-1-947172-62-3) if desired (not required to purchase printed book).
- General Chemistry I Laboratory Manual, 3rdEd. Valencia College, Online. Student is responsible to download and print the corresponding experiment(Canvas, or Laboratory Website - <http://science.valenciacollege.edu/chemistry/chemistry-labs.html>)
- Laboratory coat (labcoat) for the laboratory portion of the course.
- Access to Valencia's Science Department Laboratory site for info on techniques and resources: <http://science.valenciacollege.edu/chemistry/chemistry-labs.html> (<http://science.valenciacollege.edu/chemistry/chemistry-labs.html>).
- Scientific calculator for the class and exam work
- Access to a computer with reliable internet access and access to Canvas is required. Note: An "upgrade" to Safari during the Summer 2020 term introduced some issues with graphics in Canvas not displaying properly, especially graphics in quizzes and exams. Use of Safari is not encouraged by me at this point and it is the student's responsibility for any issues from using Safari.** It is expected that the student is competent in the use of computers and technology for an online course. The instructor is not able to provide computer or tech support for the class. Some of the laboratories will require a computer (as some labs are Flash-based a tablet or phone will not be compatible). **Smartphones or tables may have issues with the proper display of Canvas pages, a computer is required.**
- A webcam is required in order to access Honorlock's remote exam proctoring (A webcam can be purchased from the bookstore if your computer/laptop does not already has one).
- Word Processing software and the ability to create PDF documents for assignment submission (apps such as CamScanner, Adobe Scan or Microsoft Office Lens allow to create PDFs from a cellphone camera). No images (JPG, PNG, TIFF, etc) will be accepted as submissions.

### Evaluation and Assessment Guidelines

Three exams (100 points each)	300 pts	37.50%
Final Exam	200 pts	25.00%
Homework Assignments*	150 pts	18.75%
Laboratory**	150 pts	18.75%
	Total	800 pts

\* There is a total of 12 Hwk. The lowest two scores will be dropped. Homework assignments are due on Fridays at 11:59PM.

\*\* The Virtual Labs may show a percent based score (up to 100%) online (Connect Website) and will be converted to points (15 points each) on the Canvas side. There will be in excess of ten reports and only the ten highest scores will be counted (the lowest scores will be dropped). Labs are due on Wednesdays at 11:59PM.

There will be three partial exams and a comprehensive final exam (part new material, part old material). All exams are timed. Partial exams are 90 minutes long (1.5 hrs) , and the final is 150 minutes (2.5 hrs).

Final Grade: A = 800 – 720 pts; B = 719 – 640; C = 639 – 560; D = 559 – 480; F = 479 – 0

## Proctored Exam Requirement

This course will utilize Honorlock, an online exam proctoring service, to promote academic integrity during online testing (exams only). The student does not need to create an account, download software, or schedule an appointment in advance. However, the student must install the Honorlock's extension to Chrome. Instructions are provided on the modules and on the [Valencia's Online proctoring page](https://valenciacollege.edu/faculty/canvas-resources/online-remote-proctoring-students.php) .(https://valenciacollege.edu/faculty/canvas-resources/online-remote-proctoring-students.php). Honorlock is available 24/7. After you verify your identity and scan your room, you can begin your exam. Honorlock will record you via webcam, as well as record your screen activity. Honorlock's system also includes a process that can detect inappropriate search-engine use, while protecting the privacy of your personal information. The recorded information will be subject to the protection of the College's policy on Student Records.

To take an online exam, you will need:

- A laptop or desktop computer with a microphone (not a tablet or phone)
- A webcam
- Reliable Internet connection
- Photo identification in the form of a Valencia-issued student ID card or government-issued ID card (i.e. driver's license, passport)
- [Google Chrome](https://www.google.com/chrome/?brand=CHBD&gclid=CjwKCAjwqJ_1BRBZEiwAv73uwOdMgfo6w2jRYwQeMaGP_zdF8jUt2fxhF6RJTyd17J37_K7ldkhjthoCF3kQAvD_BwE&gclid=aw.ds) .(https://www.google.com/chrome/?brand=CHBD&gclid=CjwKCAjwqJ\_1BRBZEiwAv73uwOdMgfo6w2jRYwQeMaGP\_zdF8jUt2fxhF6RJTyd17J37\_K7ldkhjthoCF3kQAvD\_BwE&gclid=aw.ds) downloaded (required browser)
- [Honorlock Chrome Extension](https://static.honorlock.com/install/extension) .(https://static.honorlock.com/install/extension) downloaded

Honorlock support is available 24/7/365. Support access is built into Honorlock in real-time.

If you encounter any issues during an exam, you can contact support by live chat within the Honorlock window in Canvas, by phone (855-828-4004), and/or by email at [support@honorlock.com](mailto:support@honorlock.com) (mailto:support@honorlock.com). For answers to common questions on online proctoring, visit the [Student FAQ](https://valenciacollege.edu/faculty/canvas-resources/online-remote-proctoring-students.php) .(https://valenciacollege.edu/faculty/canvas-resources/online-remote-proctoring-students.php) page or Honorlock's [student information website](https://honorlock.kb.help/) .(https://honorlock.kb.help/).

## Important Dates

- Drop/Refund Deadline (11:59 p.m.) Aug 30, 2021
- Withdrawal Deadline - "W" Grade (11:59 p.m.) Nov. 3, 2021
- Day and Evening Classes End: Dec 3, 2021
- Labor Day Holiday: Sep 6, 2021
- Veteran's Day Holiday: Nov 11, 2021
- Exams: Sep 17, Oct 15, Nov 12, and Final on Dec 8

## General Policies

There is **no curve** in the class. The grades are final and are non-negotiable. It is the student's responsibility to submit all required work by the due date. The instructor will not reopen assignments or change the due date for tardy work. Early submission is encouraged. The professor is not responsible for technical issues (i.e. loss of internet connection). No exams are dropped or replaced from the final grade. There are no exam re-takes nor substitutions. There will be no make-up exams unless a valid, documented excuse conforming to Valencia's student code is provided and approved by the professor (discuss any issues with the professor before the exam's due date/time). A makeup exam is a new exam of similar contents and format (no questions are repeated). Please read all instructions well. Failure to follow instructions will result in points deduction (up to receiving no credit for the work). **The Final Exam is an essential component of the course and it is mandatory.** Failure to take the final exam will result in failing the course. Due to the time constraints there is no make-up for the final. *An "I" (incomplete) grade will only be assigned under extraordinary circumstances that occur near the end of the semester. Removal of the incomplete will be according to Valencia's policies.* Attendance and participation on the course activities are required and it are the student's ultimate responsibility. Attendance is determined by participation on class activities and the submission of required work.

## Student Conduct

By enrolling at Valencia College, a student assumes the responsibility for becoming familiar with and abiding the general rules of conduct. It is expected that students also follow proper netiquette rules: <https://coursedesign.colostate.edu/obj/corerulesnet.html> .(https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fcoursedesign.colostate.edu%2Fobj%2Fcorerulesnet.html&data=02%7C01%7Cddiazlopez%40valenciacollege.edu%7C387cc13ecf3d4c556a4308d7ed19b84b%7C0e8866953

## Academic Integrity

Each student is required to follow Valencia policy regarding academic honesty. All work submitted by students is expected to be the result of the student's individual thoughts, research, and self-expression unless the assignment specifically states 'group project. All forms of academic dishonesty (cheating, plagiarism, forgery, misuse) are prohibited as stated in the Student Code of Conduct and will be disciplined or penalized accordingly. Students caught cheating or plagiarizing other's work will be given a failing grade (zero) on the work for a first offense. Student's caught cheating will also be reported to the Dean's office. Any repeated offense will result in an F grade for the course. Please refer to the Dean's letter on Academic Integrity for extra information.

You will find the Student Code of Conduct in the current Valencia Student Handbook: <http://valenciacollege.edu/pdf/studenthandbook.pdf> (<http://valenciacollege.edu/pdf/studenthandbook.pdf>) or <http://valenciacollege.edu/generalcounsel/policy/documents/Volume8/8-03-Student-Code-of-Conduct.pdf> (<http://valenciacollege.edu/generalcounsel/policy/documents/Volume8/8-03-Student-Code-of-Conduct.pdf>).



4	2.4 – 2.7	Nomenclature
5	3.1 – 3.2	Moles and Composition of Compounds
6	3.3 – 3.4	Solutions and Concentrations
7	4.1	Chemical Equations
8	4.2	Classifying Reactions
9	4.3 – 4.5	Quantifying reactions
10	5.1 – 5.3	Thermochemistry
11	6.1 – 6.3	The Electromagnetic Spectrum
12	6.4	Quantum Mechanics
13	6.5	Periodic Properties
14	7.1 – 7.4	Bonding
15	7.5	Bond Energy
16	7.6	Molecular Geometry
17	8.1 – 8.3	Valence Bond Theory
18	8.4	Molecular Orbital Theory
19	9.1 – 9.6	Gases

## Class Schedule

All assignments due on Friday at midnight. Plan accordingly

Due Date	Assignment	Units (Topics)
Aug 27	Hwk 1	Units 1, 2
Sep 3	Hwk 2	Unit 3
Sep 10	Hwk 3	Unit 4
Sep 17	Hwk 4	Unit 5
Sep 17	<b>Exam 1</b>	<b>Units 1 - 5</b>
Sep 24	Hwk 5	Unit 6
Oct 1	Hwk 6	Units 7, 8
Oct 8	Hwk 7	Unit 9
Oct 15	<b>Exam 2</b>	<b>Units 6 - 9</b>
Oct 22	Hwk 8	Unit 10
Oct 29	Hwk 9	Units 11, 12
Nov 5	Hwk 10	Units 13, 14, 15
Nov 12	<b>Exam 3</b>	<b>Units 10 - 14</b>
Nov 19	Hwk 11	Units 16, 17, 18
Dec 3	Hwk 12	Unit 19
Dec 8	<b>Final Exam</b>	<b>Units 15-19 + Cumulative</b>

\* The Hwk 8 deadline hwk is moved to Thursday due to the observance of Independence Day on July 2nd.

## Lab Schedule

All laboratory assignments due on Wednesday at midnight. Plan accordingly

Week	Due	Experiment
1	Aug 27	Lab safety - Canvas
2	Sep 1	Exp. 1 Mass, Volume, and Density week 1
3	Sep 8	Exp. 1 Mass, Volume, and Density week 2
4	Sep 15	Exp. 2 Empirical Formulas
5	Sep 22	Exp. 3 Electrolytes and Nonelectrolytes
6	Sep 29	Exp. 4 Limiting Reactant, v2a
7	Oct 6	Exp. 5 Observing and Classifying Reactions
8	Oct 13	Exp. 6A Amount of Active Ingredient in Aspirin week 1
9	Oct 20	Exp. 6A Amount of Active Ingredient in Aspirin week 2

10	Oct 27	Exp. 8 Calorimetry
11	Nov 3	Exp. 10 Dye Concentration
12	Nov 10	Exp. 11 Molecular Modeling
13	Nov 17	Exp. 7 Analysis of a Gaseous Product
14	--	No Labs - Thanksgiving Holiday
15	Dec 1	TBD

## Disclaimer

This document may be altered, at the instructor's discretion, during the duration of the course. It is the responsibility of the student to make any adjustments as announced.