

**Valencia College**  
**Summer 2022 CHM 1046C\_31821**  
**General Chemistry with Qualitative Analysis II**

\*This course covers lectures and laboratory sessions.

\*This course will be taught in mixed mode for the semester of Summer 2022.

\*Lecture will be delivered online via Canvas; Lab session will be delivered on site at Lake Nona Campus. See page 10 and 11 for more info on labs.

**Professor**

Name: Dr. Maoying”Alice” Song  
E-mail: msong@valenciacollege.edu  
Office: Virtual  
Zoom Room ID: 779 321 5359  
Office Phone: (407)582-7382  
Office Hours: Drop in  
Mon 12-2 pm via [Zoom](#)  
Appointment for 1:1 meeting with Prof. Song per request  
Wed 12-1pm via [Calendly](#)  
Thu 12-2pm via [Calendly](#)  
Fri 12-1pm via [Calendly](#)

**Course**

Name: General Chemistry with Qualitative Analysis II

CRN 31821 (Term 202230)

Description: Continuation of CHM 1045C / CHM 1045H dealing mainly with equilibrium theory, thermodynamics, chemical kinetics and electrochemistry. Laboratory illustrates principles of ionic equilibria within framework of qualitative analysis

Prerequisites: CHM 1045C / CHM 1045H with a grade of C or better.

Co-requisites: None

**Educational Materials**

Textbook:

- ◆ **[Required]** Chemistry: The Molecular Nature of Matter and Change 9th Edition W/ 2yr Access Code Connect. By Martin Silberberg and Patricia Amateis. ISBN13: 9781266115462 (eBook will be available when you get an access code from McGraw-Hill)  
*or*
- ◆ **[Optional]** Chemistry 2e on OpenStax: <https://openstax.org/details/books/chemistry-2e>  
A free PDF copy is accessible to be downloaded

A paid Print copy is available to be ordered through Amazon (optional, if you prefer to have a hard copy, you have the option to pay to get it)

Lab:

- ◆ **[Required]** CHM 1046 Laboratory Manual, Lake Nona-West Campus, by J. A. Beran
- ◆ **[Required]** Composition lab notebook, Scientific calculator.
- ◆ **[Required]** Long sleeve lab coat, closed toe shoes.

Computer and Internet required:

- ◆ A reliable computer with access to internet is required for this course.

Valencia College is lending out laptops and Hot Spots for students who need it on a First Come – First Serve basis.

Link for Student Laptop Checkouts: <https://cdn.valenciacollege.edu/apps/laptop-checkout/index.php>

Students can also use the following email [laptops@valenciacollege.edu](mailto:laptops@valenciacollege.edu) to request a Valencia laptop.

Webcam required:

- ◆ LOGITECH C270 Webcam, ISBN 10598252, recommended
- ◆ Built-in camera on your computer (laptop or desktop), acceptable

Other:

- ◆ Scientific calculator (must have for quizzes, assignments and lab work)
- ◆ Access to Canvas for lecture materials and lab quizzes or assignments.

### **Assessment Process**

◆ Three exams (3 x 100 pts)	300 pts	33.33%
◆ 1 Comprehensive Final Exam	200 pts	22.22%
◆ Homework and quizzes	200 pts	22.22%
◆ Laboratory	200 pts	22.22%
	<b>Total = 900 pts</b>	

Final Grade: A = 90.00-100.00%; B = 80.00-89.99%; C = 70.00-79.99%; D = 60.00-69.99%; F = < 60.00%

(Note, Extra credits may add to the final grades for attendance and other qualified academic activities)

Assessment for this course is based on your overall accumulated points, *There will be NO CURVE for any test (lecture assignments, quizzes, tests or lab assignments) or overall accumulated score.*

## **Attendance**

Regular attendance and class participation are the most important factors that promote success in college. Attendance for online lecture session will be counted as the completion of assignments by the due date. If the student miss or submit late for one assignment, the attendance will be counted as absence or late for the day assignment is due. Read each chapter during the week as its module is delivered on Canvas, view lecture resources and complete corresponding assignments on time. Students are responsible for contacting the instructor if they cannot complete their assignment on time to attempt to have the absence excused. Extra credit may be given for attendance records; this does not include excused absences and is explained more in the extra credit section.

Students will be dropped as a no-show **after the Drop deadline (May 16, 2022) and during the No Show period** if they do not complete the first week assignment or have issue with their tuition payment.

Student should not expect that just logging into the course on Canvas will count as attendance.

Students taking online or mixed mode courses at Valencia must have a current Florida address as their primary address in the Valencia system.

Lab attendance will be documented as your presence in lab on campus during lab meeting time. If you arrive more than 5 minutes after lab start time, it is considered as tardy. If you don't come to the lab at all, your attendance for that lab is absent. Professor will have introduction and demo at the beginning of the lab meeting, if you miss it, you are not allowed to carry out lab experiment on that day.

## **Available Course Resources**

Course Resources from Professor: Copies of the PowerPoint slides will be made available online. Pre-recorded lecture videos are planned to be made available per chapter. **Zoom** live sessions for course orientation will be available in the first week of the semester. **Zoom** recordings for study guide with chapter review and questions will be available during the week for the exam.

Valencia's Online Tutoring Service: To get started, read [General Guide](#) for online tutoring, then click on the link below to self-enroll in the tutoring courses in Canvas. This is where students will access the links to live tutoring (via Zoom), as well as the schedule of tutors, times, and services. <https://libguides.valenciacollege.edu/distancetutoring>

Microsoft Office Resources: Valencia does offer Microsoft 365, which has all the common Microsoft software for free through your Atlas account. Also useful is Microsoft Lens, which allows you to scan pages into pdf files.

## **Proctored Exam Requirement**

This course utilizes Honorlock, an online exam proctoring service, to promote academic integrity during online testing. You do not need to create an account, download software, or schedule an appointment in advance. 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](#)

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). For answers to common questions on online proctoring, visit the [Student FAQ Link](#) or [Honorlock's Student Information](#) page.

### **Health and Safety Protocols**

- **Vaccines** are strongly recommended for everyone who is eligible to receive one.
  - More information on vaccines can be found [here](#).
  - Inform yourself about vaccine safety with this excellent [libguide](#) created by Valencia librarians.
- **Masks** are optional indoors on Valencia campuses. Valencia has ordered tens of thousands of masks which will be available in classrooms, building entrances, and other easily accessible locations. We are confident that when asked, most individuals will wear a mask to keep others healthy – and ask that you model the way by wearing a mask indoors.
- **Cleaning and Sanitization** protocols are robust and in place. The facilities team has installed over 2,000 hand sanitizer dispensers and continues to [implement cleaning protocols](#) to keep our facilities clean. More information about air quality and ventilation can be found [here](#).
- **COVID illness reporting** If you are not feeling well, have been in close contact with someone who is COVID positive, or have a positive COVID diagnosis, **do not come to the campus** and immediately contact your professor.

## Policies

Course Communication: Students can communicate with professor via Zoom live session offered by the instructor, through the contact information and office hours on page 1 of the syllabus.

Valencia College is committed to providing each student a quality educational experience. Professors have set high standards of instruction for themselves and for students. If a student has a problem in a class, the first step is to talk to their instructor. If the student is still dissatisfied, they may talk with the academic dean of the division for their class. We will work together to resolve any issues that arise.

Make-Up: There will be NO make-up quizzes, exams, or late homework without proper reasoning. Please communicate with professor as early as possible so that any issues can be resolved in a timely manner.

Cheating: If caught, on a quiz or test the assignment grade will result in a zero. Repeated offences will then result in a failing course grade. The student will then further be sent to Dr. Bob Gessner the Dean of Science. If caught a second time the student would then receive an F for the course as well as be referred to the Dean of Students for further action.

Final Exam: The final examination in this course is MANDATORY. Any student not completing the exam will receive a grade of “F” for the course. The exam will include a cumulative section.

Extra Credit: This is optional depending on if instructor deems necessary. Depending on attendance records a total of up to 100 extra credit points can be given at the end of the semester. Any absences for whatever reason will be calculated in giving these points. Students who complete Student Feedback on Instruction (SFI) survey by the closing date and inform professor of their completion will receive 10 bonus points to their final grade. Students have opportunity to earn bonus points through each exam, details will be provided with exams.

Withdrawal: Per Valencia Policy 4-07 (Academic Progress, Course Attendance and Grades, and Withdrawals), A student who withdraws from class before the **withdrawal deadline of Jul. 01, 2022** will receive a grade of “W.” A faculty member is permitted to withdraw a student from the faculty member's class up to the beginning of the final exam period, for violation of the faculty member's attendance policy, as published in the faculty member's syllabus. A student is not permitted to withdraw from this class after the withdrawal deadline; if you remain in the class after the withdrawal deadline, you can only receive a grade of A, B, C, D, F or I. An I grade will only be assigned under extraordinary circumstances that occur near the end of the semester. If you receive an I, the work missed must be made up during the following semester, at which time you will get an A, B,C,D or F. Failure to make up the work during the following semester will result in you getting a grade of F in the course. Any student who withdraws from this class during a third or subsequent attempt in this course will be assigned a grade of “F.”

I will not withdraw any student for any reason; it is the responsibility of the student to withdraw themselves before the withdrawal deadline and to be aware of the date of the withdrawal deadline and the influence on their financial aid or education cost with withdrawal.

**Students with Disabilities:** Students with disabilities who qualify for academic accommodations must provide a letter from the Office of Students with Disabilities (OSD) and discuss specific needs with the instructor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities.

**Academic Honesty:** Plagiarism is defined as claiming as your own a paper, report, article, or speech which in whole or in part was prepared by someone other than yourself. Cheating on an exam or copying someone else's laboratory report is also a violation of this policy. A violation of this policy can result in failure of an assignment, the entire course, or your current status as an active student. Each student is expected to be informed and compliant with the college policy on academic honesty as stated in the Student Handbook.

**Expected Student Conduct:** Valencia College is dedicated not only to the advancement of knowledge and learning but is concerned with the development of responsible personal and social conduct. By enrolling at Valencia College, a student assumes the responsibility for becoming familiar with and abiding the general rules of conduct. The primary responsibility for managing the classroom environment rests with the faculty. Students who engage in any prohibited or unlawful acts that result in disruption of a class may be directed by the faculty to leave the class. Violation of any classroom or Valencia's rules may lead to disciplinary action up to and including expulsion from Valencia. Disciplinary action could include being withdrawn from class, disciplinary warning, probation, suspension, expulsion, or other appropriate and authorized actions. You will find the Student Code of Conduct in the current Valencia Student Handbook.

**Students Lecture Recording:** Students may attempt to record classroom lectures, but may not record class discussions, labs, clinicals, or student speeches or activities. Recorders may not record other students in a way that personally identifies them and cannot block other students from seeing the professor or otherwise disrupt the class. Students cannot share such recordings with anyone without written permission from their professor, dean or other authorities at Valencia.

**College Resources:** A full description of all college policies can be found in the [College Catalog](#), [Policy Manual](#) and the [Student Handbook](#).

**Valencia Student Core Competencies:** Valencia faculties have defined four interrelated competencies (Think, Value, Communicate, and Act) that prepare students to succeed in the world community. These competencies are outlined in the college catalog. In this course, through lecture and discussion, group work, and other learning activities, you will further develop your mastery of those competencies.

**Computer/Equipment Use:** Use of computers in the Business, IT, and Public Service classrooms at Valencia College is restricted to those activities designated by the instructor to enhance the class materials. Any other use is strictly forbidden. Inappropriate use includes, but is not limited to:

- Use of computer to send Email or access Internet sites not specifically assigned in class.
- Use of computer for job, internship, or other activities not assigned in class.
- Modifying any hardware or software system configuration or setting.
- Activities not in accordance with the Valencia Student Code of Conduct.

Use of computers in the departmental open lab is limited to those activities involved with preparing homework or coursework in this department and is subject to the same restriction as listed above. Computer use is remotely monitored; any student using computers inappropriately may be subject to dismissal from class or banishment from the lab. Subsequent offense may be sent to the campus administration for further disciplinary action.

Students must use a computer with reliable internet access for online courses because excuses or failure to complete assessments due to computer error will not be permitted.

Student Assistance Program: Valencia College is interested in making sure all our students have a rewarding and successful college experience. To that purpose, Valencia students can get immediate help with issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home or work. **BayCare** Behavioral Health Student Assistance Program (SAP) services are free to all Valencia students and available 24 hours a day by calling (800) 878-5470. Free face-to-face counseling is also available.

### **Additional College Resources**

#### Learning Support Services:

- Valencia provides students with academic support through distance tutoring, face to face tutoring at the campuses, writing consultations, library services, and resources.
- Tutoring is offered in most academic disciplines including math, science, foreign languages, English for academic purposes (EAP), computer programming and writing assistance for any course.
- Assistance with library research can be accessed online through Atlas or the tutoring [LibGuide](#).
- Brainfuse is our new 24/7 online tutoring and learning hub, which is available to all of Valencia's students. This service is best used as a back-up to Valencia's Distance Tutoring service, not as a replacement. [Brainfuse](#) is accessible through Canvas.
- [Smartinking](#) is an online on-demand student support site.
- Valencia College offers a variety of [SkillShops](#): short seminars covering a variety of topics which deal with student success, goals and purpose.

#### Enrollment services:

- Call: 407-582-1507
- Email: [enrollment@valenciacollege.edu](mailto:enrollment@valenciacollege.edu)
- Hours
  - Mon-Thurs: 8 AM - 8 PM
  - Fri: 8 AM - 5 PM
  - Sat and Sun: 10 AM - 3 PM

#### Academic Advising:

- Call: 407-582-1507
- Email: [advising@valenciacollege.edu](mailto:advising@valenciacollege.edu)

- Link to “chat” <https://valenciacollege.edu/students/advising-counseling/>
- Hours
  - Mon-Fri: 7 AM – 10 PM
  - Sat and Sun: - 10 AM - 10 PM

Virtual Answer Center:

- M-F 7a-10p
- Sat/Sun 10a-10p
- [Zoom Link to Virtual Answer Center](#)
- [Website](#) for Virtual Answer Center

Counseling Services:

- M-Th 8am-8pm
- Friday 8am-5pm
- Sat/Sun 10am-3pm

Financial Aid:

Contact [FinAidOffice@valenciacollege.edu](mailto:FinAidOffice@valenciacollege.edu) for their financial aid questions, as well as for potential assistance with financial support

### **Learning Outcomes**

Students should become proficient with chemistry concepts as well as skills to complete common chemistry problems. Topics which will be taught are listed but not limited;

1. **Chemical Kinetics**
2. **Equilibrium**
3. **Thermodynamics**
4. **Acid and Bases**
5. **Electrochemistry**

### **Important Dates**

Drop/Refund Deadline: May 16, 2022

Memorial Day: May 30, 2022 No classes

Withdrawal deadline to receive a “W” is July 01, 2022

Independence Day: July 04, 2022 No classes

Final Exam: the week of July 25-August 01, 2022



### **Tentative Schedule of Classes**

Week	Date(week of)	Activity
1	May 9	Course Orientation and Chapter 12: Intermolecular Forces
2	May 16	Chapter 13: The Properties of Mixtures
3	May 23	<b>Exam 1 CH 12-13</b> Chapter Review/Study Guide
4	May 30	Chapter 16: Kinetics
5	Jun 6	Chapter 17: Equilibrium
6	Jun 13	<b>Exam 2 CH 16-17</b> Chapter Review/Study Guide
7	Jun 20	Chapter 18: Acid-Base Equilibria
8	Jun 27	Chapter 19: Ionic Equilibria in Aqueous Soln.
9	Jul 4	<b>Exam 3 CH 18-19</b> Chapter Review/Study Guide
10	Jul 11	Chapter 20: Thermodynamics
11	Jul 18	Chapter 21: Electrochemistry
12	Jul 25	<b>Final Exam</b> Review and Study Guide for Final

**Disclaimer Statement:** This outline may be altered, at the instructor's discretion, during the course of the term. It is the responsibility of the student to make any adjustments as announced.

**CHM 1046 Lab, General Chemistry with Qualitative Analysis II**  
**R 10:00am - 1:45 pm Lake Nona Campus Lab 347**  
(Address, 12350 Narcoossee Rd, Orlando, FL 32832)

**Educational Materials**

- ◆ [Required] CHM 1046 Laboratory Manual, Lake Nona-West Campus, by J. A. Beran
- ◆ [Required] Composition lab notebook, scientific calculator.
- ◆ [Required] Long sleeve lab coat, closed toe shoes, long pants.

**Attendance**

There will be NO make-up laboratories. Be punctual, as there will be a pre-lab discussion. If the student misses the entire pre-lab discussion, the student will not be allowed to perform the experiment that day.

**Lab Attire**

When attending lab you must wear closed toe shoes and have lower body covered completely. If you do not you will be asked to leave and will receive a zero for the lab. Lab coats are also mandatory to perform experiments.

**Lab Assignments**

*Pre-lab, lab practical and lab assignment will be counted as 20 points totally for each experiment.*

Pre-Lab Assignments (5 points each exp.): The pre-lab quizzes for each experiment will be available on Canvas, usually due on the day before the lab meeting.

Lab Procedure and Data (5 points each exp.): Each student is required to have at least a composition notebook for laboratory experiments. Purpose of the notebook is to mainly write down a more concise version of the experimental procedure as well as a place to write necessary preliminary information and measured lab data. This should be written in **pen**. Pictures, tables, etc. are expected to be written here. Lab notebooks are check during each experiment. Every lab day will have a notebook check. More on the format will be discussed on the first lab day.

Lab Reports and Post Labs (10 points each exp.): Lab reports will consist of an organized copy of the lab data with calculations. A final conclusion based off the lab experiment will be required along with any post lab questions. One report for each experiment. These are always due on Sunday of the lab week.

### **Tentative Schedule of Labs**

Week	Date	Exp #	Experiment Title
1	12-May	1	Welcome/Lab safety training
2	19-May	2	Expt. #14: Molar Mass of a Solid (Parts A, B, D, and E)
3	26-May	3	Expt. #23: Factors Affecting Reaction Rates
4	2-Jun	4	Expt. #24: Rate Law and Activation Energy
5	9-Jun	5	Expt. #34: An Equilibrium Constant
6	16-Jun	6	Expt. #16: LeChatelier's Principle; Buffers (Parts A-C)
7	23-Jun	7	Expt. #6: Acids, Bases, and Salts
8	30-Jun	8	Expt. #18: Potentiometric Analysis
9	7-Jul	9	Expt. #22: Molar Solubility, Common-Ion Effect
10	14-Jul	10	Expt. #37: Qual Common Anions
11	21-Jul	11	Expt. #27: Oxidation-Reduction Reactions
12	28-Jul	--	<b><i>FINALS - no lab, exam in lab space</i></b>

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