

**Chemistry 131, CRN 83793
PREPARATION FOR GENERAL CHEMISTRY**

INSTRUCTOR: Dr. Chester Dabalos (cdabalos@hawaii.edu)
OFFICE: Bilger 247B
CONSULTATION HOURS: 12:30-1:30 TR
12-12:30 W

COURSE DESCRIPTION

Provides background in algebra and elementary concepts of chemistry in preparation for General Chemistry I.

REQUIREMENTS

Textbook: "Introductory Chemistry," by Cracolice and Peters. Pick the standard access (for one semester) or the unlimited access (if one of your other instructors uses C-engage). Getting the OWLv2 automatically includes an e-book. Check the "Study Tools" tab in your C-engage account.

Computer: For watching videos and doing online requirements (see below).

The videos are from C-engage, featuring Profs. Gordon Yee and Dean Harman of Virginia Tech and Univ. of Virginia, respectively.

Online Work (includes assignments, quizzes and exams): OWLv2

To login: Check "Laulima OWL Registration" powerpoint in your Laulima for instructions.

You will gain access to OWLv2 by clicking the "Cengage tools" (globe icon) in your Laulima account.

For technical support: Call **1-800-354-9706**. Please note your case #, should there be a need to follow up.

Alternatively, check out <https://cengage.force.com/s/contact-us>

Scientific Calculator and a handy Periodic Table of Elements

STUDENT LEARNING OUTCOMES

The goals student learning outcomes for Chemistry 131 are:

- Understand atomic structure and compound formation.
- Appreciate trends in physical and chemical properties of elements based on the periodic table.
- Use conversion factors and rearrange equations to perform calculations.
- Balance chemical equations, classify reactions, predict products of precipitation reactions
- Apply the mole concept and unit analysis in solving stoichiometry problems.

COURSE TASKS

Read powerpoints. Watch the online videos, simulations and demonstrations.

Accomplish homeworks, quizzes and exams using OWLv2.

GRADING

Grades will be determined from homeworks, quizzes and three exams.

<u>Evaluation</u>	<u>Percent of Course Grade</u>
Homeworks	10%
Quizzes	15%
Exam 1:	25%
Exam 2:	25%
Finals:	25%

Check your browser requirements the first time you sign in to be sure you can view the problems correctly and submit your work. Contact C-engage technical support (see above) if you are having trouble.

The passing grade for a homework is 70%. Three tries will be allowed. All homework is due at 11:50 pm on the deadline. Start working on the homework before the due date! You can (and are encouraged to!) re-work homework questions after the assignment has been submitted to help you study for the exams.

In addition to these graded homeworks, four introductory exercises and Math Review are included to improve your proficiency in using the OWLv2 software and with chemistry.

Quizzes will available from 8am to 8pm on the assigned date and will have a time limit. In contrast to homeworks, quizzes will have a time limit and only one try is allowed. Use quizzes to prepare you for the exam.

There is will be two midterm exams (scheduled on Feb 25 and April 6). You have the option of taking the exam at a UH testing center, where you will be proctored (extra instructions will be given prior the exam week). Else, contact ProctorU (proctor.com) if you want to take the exam at the convenience of your home. ProctorU charges by the hour. Please email me whether you would like to have the exam in a testing center or through ProctorU, two weeks before the exam. I need to plan beforehand.

A password will be mailed (to the proctor) before the exam starts. You can bring a 3" by 5" index card with anything written on it (equations, conversion factors and constants). A bigger index card (4" by 6") is allowed for the final exam. **No-make up exam will be given**. For missed exams, a medical note, police report, or obituary notice is required. The final exam may be used to replaced the missed exam, given a valid and documented reason.

Late Policy

Deadlines will not be extended. Do not waste your time asking me for extension (except with valid medical reasons). Please check that your computer is configured to Hawaii time.

Never wait for the last minute for help. Plan to email me before **4 pm** (on the day of the deadline) should you like to ask for assistance. I can not answer emails a few hours before the deadline.

Plan to **spend 1-2 hours outside of class every day** working on homework and reviewing the material covered in class. The best way to get better at chemistry is to **PRACTICE SOLVING PROBLEMS**.

KOKUA www.hawaii.edu/kokua

If you are a student with a disability, please contact KOKUA to make arrangements to provide you with the best learning environment possible. I will be happy to work with you and KOKUA to address your access needs.

OTHER POLICIES

1. Topics and schedule are listed on the next page, although this may be modified at the instructor discretion (especially if we needed more time for a certain topic).
2. Cheating and any other form of academic dishonesty will result in an "F" for the class.
3. Announcements will be sent by email.
4. Lecture notes will be posted on Laulima.

OTHER RESOURCES (aside from me)

- 1) Learning Emporium
- 2) Learning Assistance Center
- 3) online learning academy
- 4) housing success center

Lastly, if you are a student athlete, there is an additional tutoring system. Contact your advisor.

ADVICE FOR CONTACTING ME (cdabalos@hawaii.edu)

- 1) Email is the best way to contact me, and I make every effort to answer student emails within 2 business days.
- 2) Per departmental policy, I will only respond to emails sent from an @hawaii.edu address.
- 3) In the event that you would like to see me in person, please see me in my consultation hours at the chemistry department.
- 4) We can also talk through the phone. Please email me and I will give my office number.
- 5) Lastly, we may also meet with me through Skype. Please email me and I will give the details.

COURSE SCHEDULE

CHEMISTRY 131 TENTATIVE SCHEDULE

Week of	Due	Topics/Important Information
Jan 13		Read syllabus; Register to C-engage's OWLv2 Math Review I ; States of Matter; Physical vs Chemical Change
Jan 20		Pure Substances and Mixtures Scientific Notation; Significant Figures
Jan 27	HMWK_1	Units and Conversion Temperature; Density
Feb 3	HMWK_2 QUIZ_1	Dalton's Atomic Theory; Subatomic particles; Isotopes Atomic Mass; Avogadro's Number
Feb 10	HMWK_3	Chemical Families; Intro to Periodic Table Electron Configuration; Trends in Periodic Table
Feb 17	HMWK_4 QUIZ_2	Metals vs non-metals
Feb 24		EXAM_1 (February 25, 2020)
Mar 2	HMWK_5	Math Review II ; Ionic vs Covalent Compounds; Electronegativity and Polarity Lewis Structure
Mar 9	HMWK_6 QUIZ_3	VSEPR Nomenclature of ionic and covalent compounds Nomenclature of acids; Dissociation of acids; Polyatomic ions
Mar 16		SPRING BREAK
Mar 23	HMWK_7	Molar masses; Avogadro's number Molecule-mole relationships
Mar 30	HMWK_8 QUIZ_4	% composition; Empirical vs molecular formula;
Apr 6		EXAM_2 (April 7, 2020)
Apr 13	HMWK_9	Math Review III ; Types of chemical reactions Writing and balancing chemical equations Energy in reactions; Units of Concentration
Apr 20	HMWK_10 QUIZ_5	Dilutions; pH scale Percent yield
Apr 27	HMWK_11	Limiting Reagent Individual Gas Laws
May 4	HMWK_12 QUIZ_6	Combined Gas Laws Ideal Gas Equation
May 11		FINAL EXAM (TBA)