

Chemistry 131, CRN 75934  
Bilger 152 MWF 2:30-3:20 pm

PREPARATION FOR GENERAL CHEMISTRY

INSTRUCTOR: Chester Dabalos ([cdabalos@hawaii.edu](mailto:cdabalos@hawaii.edu))

OFFICE: Bilger 245B

OFFICE HOURS: MW 3:30-4:30

**COURSE DESCRIPTION**

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

**REQUIREMENTS**

“Introductory Chemistry,” 2<sup>nd</sup> Custom Edition for the University of Hawaii-Mānoa by Steve Russo and Mike Silver. (Other acceptable editions: 5<sup>th</sup> non-custom edition eBook; 1<sup>st</sup> UH Mānoa custom Ed; 5<sup>th</sup> or 4<sup>th</sup> non-custom Ed.)

MasteringChemistry: [www.masteringchemistry.com](http://www.masteringchemistry.com)

Course ID: CHEM131FA16

Access code: This comes free with a new book. If you buy a used book that does not come with a code, you will need to purchase instant access during registration

Textbook: Choose Russo/Silver “Introductory Chemistry: Atoms First, 5/e”

For technical support with MasteringChemistry, go to <http://247pearsoned.custhelp.com/>

or email Jessica Hamad, [Jessica.Hamad@pearson.com](mailto:Jessica.Hamad@pearson.com)

Scientific Calculator (graphing calculators are not allowed)

**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
- Know intermolecular forces in solids, liquids, and gases.
- Apply the mole concept in solving stoichiometry problems involving solids, liquids, gases and solutions.

**COURSE TASKS**

Participate in class, online homework, and exams

Class participation includes:

- Reading the chapter in the book prior to coming to class
- Bringing the lecture notes (available on Laulima, please print and write your notes on them)
- Bringing a calculator (especially for exams)
- Bringing your blue and yellow notecards (handed out first week of class)

**GRADING**

Grades will be determined from homework (MasteringChemistry) and 4 exams.

<u>Evaluation</u>	<u>Date</u>	<u>Percent of Course Grade</u>
Homework	Online	20%
Exam 1: Ch 1-4	Friday, Sept 30 <sup>th</sup>	20%
Exam 2: Ch 5-7	Friday, Oct 28 <sup>th</sup>	20%
Exam 3: Ch 8-9	Friday, Nov 18 <sup>th</sup>	20%
Final Exam	Friday, Dec 16 <sup>th</sup>	20%

**HOMEWORK [www.masteringchemistry.com](http://www.masteringchemistry.com)**

All homework is **online** and will be available at **3 days** before the due date. Check your browser requirements the first time you sign in to Mastering Chemistry to be sure you can view the problems correctly and submit your work. Use the campus computers in the library or contact Pearson technical support (see above) if you are having trouble.

All homework is due **11:59 pm** on its due date. Start working on the homework before the due date! If you get the answer wrong the first time on multiple choice or open-answer questions, you can still get partial credit for figuring out the right answer.

### **Late Policy**

**Assignments lose 25% every day they are late.** This is prorated, so if you turn in an assignment 1 hour late, you will only lose ~1%. Late penalties are only applied to the questions that are completed late, not the whole assignment.

**Use the hints!** There is no penalty for opening a hint and no penalty for getting a hint wrong. Use the hints to help you get more points on the problems. You can (and are encouraged to!) re-work homework questions after the assignment has been submitted to help you study for the exams.

You should 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**.

### **EXAMS**

All exams are in-class. Bring your own scientific calculator (there is no guarantee that I could lend you one during exams). Your phone is not a calculator, and you are not allowed to use your phone during an exam. Learn to use your calculator before coming to exams. I will not teach you to use the calculator during exam hours.

You are not allowed to talk to any student during the exam. You will be tried of cheating if you do so.

You can bring a 3" by 5" index card with anything written on one side only. You can write pertinent equations, conversion factors and constants in this card. I will inspect your index card during the exam.

Any type of academic dishonesty will result in failure of the course.

There will be 3 midterm exams (Exams 1-3) and a comprehensive final exam. A practice exam will be posted in Lulima three days before the exam. Please remind me in case I forgot to do so.

**No-make up exams will be given.** For missed exams, a medical note, police report, or obituary notice is required. You must notify me **at least an hour before the exam**. If you cannot provide this condition, a score of **zero** will be assigned.

The comprehensive final exam may be used to replace a zero should you miss an exam (not exams!) for a valid and documented excuse. Therefore, your final exam can weigh either 20% or 40% of your final grade. ***Please be aware – this is not a free license to skip a midterm exam at will. Midterm exam replacement will only happen for an exam you have missed for a valid excuse or university sponsored/related travel.***

**Bring your student ID to all exams! Asking someone to take the exam for you will be severely penalized.**

### **KOKUA [www.hawaii.edu/kokua](http://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 exam schedule are listed on pg 3, although this may be modified at the instructor discretion (especially if we needed more time for a certain topic).
2. Disruptive behavior is not only rude to the instructor but to the rest of the class. Annoyance includes excessive comments, use of cell phones, etc...
3. Cheating will result in an **"F"** for the class. **No exceptions.**
4. Changes in schedule that are announced in class will also be posted to Lulima Announcements. You are responsible for these whether present in class or not.
5. Class announcements, including lecture notes will be posted on Lulima.

### **ADVICE FOR CONTACTING ME ([cdabalos@hawaii.edu](mailto: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) If office hours do not work in your schedule, email me and we can set up a separate meeting time (preferably in the morning) to go over course material and answer questions.

**COURSE SCHEDULE**

## CHEMISTRY 131 TENTATIVE SCHEDULE

Wk	Date	Day	Homework Due	Topics/Important Information
1	8/22	M		Discussion of Syllabus
	8/24	W		How to Study Chemistry
	8/26	F		Math Review
2	8/29	M		<b>Ch 1: What is Chemistry?</b> <i>last day to drop w/o grade</i>
	8/31	W		
	9/02	F		
3	9/05	M		<b>Labor Day</b>
	9/07	W		<b>Ch 2: The Numerical Side of Chemistry</b>
	9/09	F		
4	9/12	M	Ch 1, 2	
	9/14	W		<b>Ch 3: The Evolution of Atomic Theory</b>
	9/16	F		
5	9/19	M	Ch 3	
	9/21	W		<b>Ch 4: The Modern Model of the Atom</b>
	9/23	F		
6	9/26	M	Ch 4	
	9/28	W		<b>Review for First Exam</b>
	9/30	F		<b>First Exam (Ch 1-4)</b>
7	10/03	M		<b>Ch 5: Chemical Bonding and Nomenclature</b>
	10/05	W		
	10/07	F		
8	10/10	M	Ch 5	<b>Ch 6: The Shape of Molecules</b>
	10/12	W		
	10/14	F		
9	10/17	M	Ch 6	<b>Ch 7: Intermolecular Forces and Phases of Matter</b>
	10/19	W		
	10/21	F		<i>last day for withdrawal</i>
10	10/24	M	Ch 7	<b>Ch 8: Chemical Reactions</b>
	10/26	W		<b>Review for Second Exam</b>
	10/28	F		<b>Second Exam (Ch 5-7)</b>
11	10/31	M		
	11/02	W		
	11/04	F		<b>Ch 9: Stoichiometry and the Mole</b>
12	11/07	M	Ch 8	
	11/09	W		
	11/11	F		<b>Veteran's Day</b>
13	11/14	M	Ch 9	
	11/16	W		<b>Review for Third Exam</b>
	11/18	F		<b>Third Exam (Ch 8-9)</b>
14	11/21	M		Special Topic I: Gas Laws
	11/23	W		Special Topic II: Thermochemistry (Ch 13.2)
	11/25	F		<b>Non-instructional holiday</b>
15	11/28	M		<b>Ch 12: Solutions</b>
	11/30	W		
	12/02	F		
16	12/05	M	Ch 12	
	12/07	W		<b>Review for Final Exam</b>
	12/16	F		<b>Final Exam (comprehensive)</b>

## STUDY GUIDE FOR CHEMISTRY COURSES

**1) Study with others.** Students who study and work on homework together understand the material better. Work with others on the homework, compare your answers, and talk about what is the right answer. Obviously, you cannot work together on the exams, but working through the problems with others will help you do better on the exams. Note: working together is not the same thing as copying someone's work. Learn to solve the problems on your own in this class and build a strong foundation for your future chemistry courses.

Supplemental Instruction (SI) study group announcement this coming Wednesday c/o Abigail Sy

**2) Think of chemistry as something you can learn to do well.** While it may seem that chemistry is something you either “get” or “don’t get,” psychology research has demonstrated that not only can you get better at chemistry by practicing, but that if you believe that you can develop your chemistry skills, you will get better. Sure, some people will understand the material easier and faster than others, but by doing the practice problems online and in your book, **you can get better at chemistry.**

**3) Practice, practice, practice.** Do the assigned homework online, and then do unassigned problems in your book for fun. Work on the in-class problems and ask questions if you do not understand the answer.

**4) Go ask questions.** In addition to my office hours, you can get help at the Learning Emporium in Bilger Addition 209. (Note, Bilger Addition is connected to Bilger Hall by double doors on each floor. Bilger Addition has labs around the outside of the hallway; the Learning Emporium is in the center on the second floor.)