

Chemistry 131, CRN 76405
Bilger 152 TR 12:00-1:15 pm
PREPARATION FOR GENERAL CHEMISTRY

INSTRUCTOR: Dr. Amanda Fenner (afenner@hawaii.edu)
OFFICE: Bilger 247B, email is the best way to contact me.
OFFICE HOURS: Wed and Thurs 1:30 pm to 2:30 pm, or by appointment

COURSE DESCRIPTION

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

TEXT BOOK, MASTERING CHEMISTRY, LEARNING CATALYTICS

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

Required: **MasteringChemistry:** www.masteringchemistry.com

Course ID: **CHEM131FA15**

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 (\$66 or \$115 with eTextbook)

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

See “Chem131_Textbook_MasteringChemistry” on Laulima Announcements page for more information.

Required: **Learning Catalytics** https://learningcatalytics.com/users/sign_up

The **access code** comes with a new book or eBook purchase. If you buy a used book that does not come with a code, you will need to purchase an access code (\$12)

For technical support with MasteringChemistry or Learning Catalytics, go to <http://247pearsoned.custhelp.com/> or email Jessica Hamad, Jessica.Hamad@pearson.com

STUDENT LEARNING OUTCOMES

The goals student learning outcomes for Chemistry 131 are:

- Understand atomic structure and use this information to predict compound formation.
- Understand trends in physical and chemical properties of elements based on the periodic table.
- Use conversion factors and equation rearrangement to solve algebra problems and perform calculations.
- Balance chemical equations, classify reactions, predict products of precipitation reactions
- Understand intermolecular forces in solids, liquids, and gases.
- Use the mole concept in solving stoichiometry problems involving solids, liquids, gases and solutions.
- Solve acid/base neutralization problems

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)
- Bringing a calculator (especially for exams)
- Bringing your blue and yellow notecards (handed out first day of class)
- Asking questions

GRADING

Grades will be determined from homework (MasteringChemistry), in class questions (Learning Catalytics) and 4 exams.

Evaluation	Date	Percent of Course Grade
Homework & Learning Catalytics	Online and in class	20%
Exam 1, Ch 1-4	Thurs, Sept 24 th	20%
Exam 2, Ch 5-6	Thursday, Oct 22 nd	20%
Exam 3, Ch 7-8	Thurs, Nov 19 th	20%
Final Exam, Ch 1-9 & 12	Tuesday, Dec 15 th	20%

HOMEWORK and LEARNING CATALYTICS www.masteringchemistry.com

All homework is online and will be available at least 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 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. There is also no bonus for not using hints. 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 for every hour in class working on homework and reviewing the material covered in class. The best way to get better at chemistry is to practice solving problems.

Learning Catalytics

This is an online platform that you access through your MasteringChemistry homepage. We will use Learning Catalytics periodically throughout the semester for individual and small group questions. For days that we will be using Learning Catalytics, I will post an announcement on Lulima the day before class to remind you to bring a WiFi-enabled device to class. WiFi-enabled devices that you can use to access Learning Catalytics include smartphones, tablets, and laptops. After class, you can access these sessions to review questions and solutions.

EXAMS

All exams are in-class. You may use your own calculator (scientific, not graphing) and a periodic table that will be made available to you. Your phone is not a calculator, and you may not have your phone out during an exam. You may not use notes or talk to any student during the exam. You are expected to uphold the University of Hawaii Student Conduct Code. Any type of academic dishonesty including cheating or plagiarism will result in failure of the course.

There will be 3 midterm exams (Exams 1-3) and a comprehensive final exam.

No-make up exams will be given. For missed exams these require a medical note, police report, obituary notice and you must notify me that day or before, **and not afterwards**. If you cannot provide this statement, a score of zero will be assigned.

The comprehensive final exam may be used to **replace your lowest Normalized score from midterm exams 1-3**, or serve to replace a zero should you miss an exam for a valid and documented excuse. Therefore, your final exam can weigh between 20% and 40% of your final grade, whichever is to your advantage. ***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 taken (or missed for a valid, verified medical excuse or university sponsored/related travel).*** Do not plan to leave Honolulu before your Final Exam on Tuesday, December 15th.

Bring your student ID to all exams!

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 exam schedule are listed on pg 3, although this may be modified at the instructor discretion
 2. Disruptive behavior is not only rude to the instructor but the rest of the class. The instructor reserves the right to remove the student. This includes, excessive and rude comments, cell phones, sleeping, eating/drinking in class, etc...
 3. Cheating will result in an “F” for the class so please don’t do it.
 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.
- . Class announcements, including lecture notes and when to bring a WiFi device will be posted on the Announcements page on Lulima. I do not usually check the messages on Lulima, so if you need to contact me, use my UH email.

COURSE SCHEDULE

CHEMISTRY 131 TENTATIVE SCHEDULE

Wk	Date	Day	Homework Due	Chapter	Topics/Important Information
1	8/25	T		1	What is Chemistry?
	8/27	R		1/2	The Numerical Side of Chemistry
2	9/1	T	Ch 1: All Sections	2	
	9/3	R	Ch 2: A (1-7)	2/3	The Evolution of Atomic Theory
3	9/8	T	Ch 2: B (8-9, EoC)	3	
	9/10	R	Ch 3: A (1-4)	3/4	<i>Last day for 50% tuition refund (9/14)</i>
4	9/15	T	Ch 3: B (5-10, EoC)	4	The Modern Model of the Atom
	9/17	R	Ch 4: A (1-4)	4	
5	9/22	T	Ch 4: B (5-7, EoC)	Review 1-4	<i>Practice Exam 1</i>
	9/24	R		Exam 1, Ch 1-4	
6	9/29	T		5	Chemical Bonding and Nomenclature
	10/1	R		5	
7	10/6	T		5	
	10/8	R	Ch 5: A (1-5)	5/6	The Shape of Molecules
8	10/13	T	Ch 5: B (5-8, EoC)	6	
	10/15	R	Ch 6: A (1-2)	6	
9	10/20	T	Ch 6: B (3-4, EoC)	Review 5-6	<i>Practice Exam 2</i>
	10/22	R		Exam 2, Ch 5-6	<i>Last day to withdraw, 4pm (10/23)</i>
10	10/27	T		7	Intermolecular Forces and Phases of Matter
	10/29	R		7	
11	11/3	T		7/8	Chemical Reactions
	11/5	R	Ch 7: A (1-2)	8	
12	11/10	T	Ch 7: B (3-5, EoC)	8	
	11/12	R	Ch 8: A (1-4)	8	
13	11/17	T	Ch 8: B (5-6, EoC)	Review 7-8	<i>Practice Exam 3</i>
	11/19	R		Exam 3, Ch 7-8	
14	11/24	T		9	Stoichiometry and the Mole
	11/26	R		NO CLASS	<i>Thanksgiving</i>
15	12/1	T	Ch 9: A (1-3)	9	Solutions
	12/3	R	Ch 9: B (4, EoC)	12	
16	12/8	T	Ch 12: A (1-4)	12	
	12/10	R	Ch 12: B (5-7, EoC)	Review Ch 9 & 12	<i>Practice Exam 4</i>
17	12/15	T	12:00-2:00 pm	Final Exam	CUMULATIVE

* EoC (End of Chapter), means HW may include review questions to tie the whole chapter together

ADVICE FOR CONTACTING ME (afenner@hawaii.edu)

- 1) I realize that many questions you have are time-sensitive. Email is the best way to contact me, and I make every effort to answer student emails within 2 business days. Quick questions are welcome 5 min before and after class.
- 2) In addressing your email, titles can be confusing. The correct way to address me is "Dr. Fenner."
- 3) When you send an email, be sure to note that you are in Chem 131.
- 4) Per departmental policy, I will only respond to emails from an @hawaii.edu address.
- 5) Emails asking questions about homework problems should include the title of the homework assignment (i.e. Ch 2A) along with the problem number. You are also encouraged to send photo of work you have done on the problem; this will help me determine where you may be having trouble.
- 6) Emails concerning topics already covered in the syllabus will receive a response advising you to check the syllabus (i.e. exam dates, late policy, etc.). You can access the syllabus on Lualima at anytime.
- 7) If office hours do not work in your schedule, email me and we can set up a separate meeting time to go over course material and answer questions. Asking questions early in the course will save you time and frustration when you are doing homework or studying for the exam.

STUDY GUIDE FOR CHEMISTRY COURSES

1) Study with others. Students who study and work on homework together understand the material better. It makes sense; **when you understand something well enough to explain it to someone else, then you really know the material.** 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.

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. As Greg LeMond said, "It doesn't get any easier, you just get faster." And from Eddy Merckx, "Ride lots." Although in our case, it's “practice chemistry lots.”

4) Go ask questions. In addition to my office hours, you can get help at the Learning Emporium and through the Learning Assistance Center. UH Manoa provides FREE tutoring M-F 9-5 pm in 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.)