

Course Syllabus: Chem W1A General Chemistry

Course Information

Course Number

Chemistry W1A

Course Name

General Chemistry

Course Instructor

Zerubba Levi

Graduate Student Instructors (GSI)

Paul Daubenmire

Click on the **Support** link on the Modules page for details on getting help.

Course Schedule

Please click on the **Course Schedule** link under the Modules tab for an overview of due dates and projects. We **STRONGLY** encourage you to follow the schedule as closely as possible. Module assignments are due at the end of the Module and cannot be extended. Use the **Calendar**, available from the Calendar tab, to create your own class schedule and manage your coursework and assignments.

Course Credits

Three (3) Units

Prerequisites

This course has no prerequisites.

Course Expectations

Your key goal in this course is to develop an atomic level understanding of everything you can observe or measure. Rather than memorize facts and algorithms, you will be asked to make predictions and provide explanations. Specifically, you will be building knowledge of chemistry and developing an understanding of the scientific process in general.

What is required of you:

1. Completion of thirty-eight (38) Lessons in General Chemistry & 13 Module Quizzes.
2. Completion of nine (9) objectives in the ALEKS learning system.
3. Completion and submission of three (3) Themed Problems.
4. Participation in the discussion forums.

5. Two Midterm Quizzes and one Final Exam.

Required Materials

Required Tool

- TI-30X IIS Calculator (or equivalent simple calculator)

Required Text

- Atkins and Jones "Chemical Principles, The Quest for Insight" 5th ed. W.H. Freeman Publishers

With the text you will receive access information to the [online edition](#). To use the online edition of the text, navigate to the indicated chapter and use the left navigation bar to find the assigned readings.

Required Online Homework System

- ALEKS for Chemistry

Getting Started with ALEKS

- For detailed information about getting started in ALEKS see your [introductory materials \(PDF\)](#).
- **To register as an ALEKS user:**
 - Go to the ALEKS web site at <http://www.aleks.com>.
 - Click on the link marked "SIGN UP NOW" (upper left corner of the screen).
 - On the next screen you will be asked to provide the following course **Chem 1A Professor Levi – H3DQL-NWGFJ**
 - The next screen will ask for information we need to give you credit for your work on ALEKS. Please provide all the information requested.

NOTE: **ALEKS is a separate system from your online classroom. Support for ALEKS is provided by ALEKS, not the 24-7 support offered through your online classroom or your instructors.** ALEKS support is at <http://support.aleks.com>

Communication and Support

We want to hear from you if you have any questions or concerns, and we have provided a number of ways to communicate with your instructor/GSIs and fellow students. We encourage you to use the forums for any matters in which other students might also be interested. If the matter is more personal or specific to your situation, visit the Support page for detailed contact information and advise about whom to contact.

Questions and Answers Forum

Please use this forum to post questions about the course material, assignments, the learning management system or online homework. **The instructor/GSIs will monitor this forum**, but you should also feel free to post answers to help other students. This helps to create a general FAQ so that all students in the course may benefit from the exchange.

Student Lounge

The Student Lounge is your place for informal discussion among students, a place to create new topic threads and share common issues or experiences, class-related or not. **This forum is not monitored by the instructors.**

Course Mail

We will send out reminders and other mass mail through Course Mail, so make sure to check your Course Mailbox for messages from the instructor/GSIs. You can access course mail on the course home page, as well as from the Communicate tab. You may also use the course mail to communicate with your fellow students.

Office Hours

The instructor will offer both in-person and virtual office hours at set times to communicate in real time with students. The GSI will be available via virtual office hours. Please see the calendar for date and time information. These chats are logged, so if you cannot attend the office hours, you can review the conversation later. You can access the chats by clicking on the Communicate tab.

One-on-One Conferencing

You can also arrange for a one-on-one conference with your Instructor/GSI. These conferences can occur in person, on the phone or over Skype. See the Support page about contact information.

Campus Student Learning Center

The campus Student Learning Center has assistance for Chem W1A students.
<http://slc.berkeley.edu>

Learning Activities

This course is divided into 13 **modules** of 38 **lessons** with a series of assignments or learning activities.

The schedule of assignments is detailed in the **Course Schedule**. You will be expected to

fully participate in the course including daily reading and self-test exercises; watching the multimedia lecture presentations; completing online homework on ALEKS; submitting a theme problem per module; interacting with your fellow students, graduate student instructors, and professors in the discussion forums; taking an online check-up quizzes; and completing the final examination.

Modules

Modules are organized around a theme and contain a list of Learning Outcomes for the module. The lessons and assignments within the module reflect the learning activities designed to reach those outcomes. Each module contains two to four lessons on specific topics. In addition to the lesson videos, I will provide links to timely video introductions to each lesson recorded as we are working our way through the course.

Readings and Self-test Exercises

On the module's Learning Activities page, you will be assigned specific readings and self-test exercises. Take time to perform the noted exercises to ensure that you've grasped the materials. Problems like these will appear on the quizzes and exam. The answers to the problems can be found in the back of the textbook.

Lessons

Lessons consist of recordings designed to support your readings and assignments but also contain additional material that will be included in the exams. Lessons focus on a specific topic and contain four types of elements: Lectures (L), ChemQuizzes (Q), Demonstrations (D) and Nuts and Bolts (NB) (problem-solving).

Lessons have been broken into sections. You are expected to take notes while viewing the lessons as you would in a regular classroom. You may choose to print a handout of the slides that are provided in PDF format for these notes.

On the lesson page you will also find the readings and self-test problems relevant to the section and topic matter.

Module Quizzes

You will be given thirteen (13) Module Quizzes to be completed at the end of each module. Each Module Quiz will consist of one question closely related to the ChemQuizzes (discussed in the video lessons), and will help in preparation for the Final Exam. While these quizzes will be completed online and are considered open-book, they cannot be taken collaboratively with other students.

ALEKS Homework Assignments

You will complete nine, computer-graded Homework Assignments in the ALEKS on-line homework system. ALEKS is separate from your course website and requires a separate login. Your ALEKS grade will be awarded in two halves; half based upon your average score in ALEKS and the remaining half based upon your overall completion of the ALEKS 'pie' by the 7th week of class. Consider ALEKS only as a tool for building and practicing the **basic skills** necessary for the higher order problems encountered on the Final Exam. We STRONGLY encourage you to follow the schedule as closely as possible. Due dates for the

ALEKS objectives cannot be extended.

Please refer to the Course Schedule and monitor the course Calendar for due dates.

Themed Problems

In every module except Module 8 and Module 13, you will find a *Themed Problem* assignment worksheet. We encourage you to do all of the worksheets to test your understanding of the materials and to prepare for the examination, but you must submit **three** worksheets for grading by your GSI:

- One for Modules 1-4
- One for Modules 5-9
- One for Modules 10-13

Please submit the assignments to the appropriate drop boxes below. The instructor will make worksheet answer keys for those modules available after the drop box closes

The Themed Problem worksheets are provided as .doc (DOC) files and can be returned for submission as such. If you do not have Microsoft Word, you may use Google Docs or Open Office to edit and/or print the files. If necessary, you may print, manually answer, scan and submit the assignment as a PDF. Please check with your GSI first before you submit an assignment in a format other than DOC, DOCX or PDF.

Your GSI will provide specific feedback on your submissions to help you prepare for the assessment, but will also make worksheet answer keys for all Themed Problems available after everyone has submitted the assignment. For an at-a-glance view of due dates and requirements, refer to the **Course Schedule** under the Modules tab.

Assigned Team Discussions

On the front page of your online classroom, you should pick a team for assigned discussion. In each module we ask you to write reflectively and critically about a discussion topic. You must participate in thirteen (13) discussions moderated and graded by your GSI and Instructor. Discussions use the web-based threaded discussion format. Your grade will be based on the frequency and quality of comments you make. Your posts and responses are considered your class participation, as well as your opportunity for exchanging views and sharing experience with all the other students in the course. Failure to post by the due dates (see the Course Schedule) will result in 0 pts for that week's discussion.

Midterm Quizzes

You will be given two (2) Midterm Quizzes for a grade. Midterm quizzes are short but comprehensive of the material presented to date. They are reflective of Final Exam questions and are meant to help you prepare for the Final Exam. See the Course Schedule for the dates. While the quizzes are considered open-book, they can not be taken collaboratively with other students. The learning management system keeps detailed

records of logins and submissions. Please review the ethics guideline for online courses provided at the beginning of this class and the UC Berkeley code of conduct.

Final Exam

You will take a three-hour, closed-book final exam on paper to be taken either on campus or with a proctoring service elsewhere; the exam will focus on content from the video lessons, themed problems and quizzes. This is the only exam in Chem W1A. Your course grade is based heavily on your performance on the Final Examination. You must achieve a grade of 'C' or higher on the Final Examination to achieve a passing grade in Chem W1A. Please see your Course Schedule for the location and time of the final exam.

Students may possibly arrange to have the examination proctored if they can not come to campus. Please contact your Program Coordinator Tracie Littlejohn at tlittlejohn@unex.berkeley.edu to make alternative arrangements. Off-site proctors must be approved prior to July 26, 2013.

Grading and Evaluation

Your course grade will be calculated as follows:

Discussion Assignments	10%
Themed Problems	10%
ALEKS Homework	10%
Module Quizzes (13)	10%
Midterm Quizzes (2)	10%
Final Exam	50%

You must pass the final exam with a grade of C or higher to receive a passing grade in Chem W1A. Bonus points will be offered from time to time for completing surveys, GSI evaluation, etc.

Grading Rubric

All of your assignments will be graded on a 100-point scale. Your discussion assignments will be graded for accuracy and for quality of response. The rubric below gives you an idea of levels of competence.

	Poor	Needs Improvement	Meets Expectations	Exceptional
Content	Poor writing style with little or no specific	Adequately written; some points	Well written, most points elaborated with	Well written, fully elaborates points. Clear

	details, no evidence of having studied the material, and/or off topic.	elaborated but with minimal use of concepts from the material.	clear and detailed information that supports thoughts and ideas and uses concepts from the material.	and detailed information supports thoughts and ideas and shows full acquisition of concepts from the material.
Organization and Mechanics	Little or no structure present. Grammatical errors interfere with comprehension.	Organization present but awkward. Some grammatical errors present.	Good organization with few statements out of place. Minor grammatical errors.	Clearly organized and remains focused. Few or no grammatical errors.
Participation	Minimal posts in number or length. Posts show little or no reflection on the topics or previous posts.	Posts address the topic but consist mostly of a rote repetition of the study materials. Little or no reflection on previous posts.	Posts address the topic with reflection. Many responses build on previous posts.	Posts show a genuine interest in contributing to the overall life of the forum.

Your scores for your discussion assignments, themed problems and check-up quizzes are recorded in the course gradebook, and you can see them by clicking on the **Report** tab. Your ALEKS score can be found in the ALEKS system. Your final grade, however, will not appear online. **Your final letter grade will be mailed to you by the registrar's office.** Final grades are assigned according to the following percentages.

Letter Grade	A	B	C	D	F
Percentage	100-85	84-70	69-55	54-45	< 45

Extra credit will be offered from time to time for completing surveys, GSI evaluations, etc

Policies and Course Etiquette

Late Work

All assignments are due by midnight of listed due date (see the **Course Schedule**), except the last discussion assignment which is due at 5pm. All due dates and times are given in Pacific Daylight Time (PDT). We will subtract 20% for every day that an assignment is late. **No assignments will be accepted after August 12**, and any unsubmitted assignments will receive zero points. You will receive zero points for any late posts/responses to the Discussions Forum.

Students with Disabilities

We have provided text transcripts of all of the recorded lessons at the end of each module. The TXT files are in a zipped folder for download.

Students requiring additional course accommodations due to a physical, emotional, or learning disability must contact the Disabled Students' Program (DSP), <http://dsp.berkeley.edu/services.html>, at the beginning of the course with their request. The DSP will review all requests on an individual basis.

Ethics and Academic Integrity

You are encouraged to discuss the topics covered in this class with your fellow students. However, it is assumed that all work you submit for this class is original and done independently. This includes the ALEKS and themed problems, the quizzes, online discussions, as well as the final exam.

University Policy on Academic Honesty

(From the UCB General Catalog)

Achievement and proficiency in subject matter include your realization that neither is to be achieved by cheating. An instructor has the right to give you an F on a single assignment produced by cheating without determining whether you have a passing knowledge of the relevant factual material. That is an appropriate academic evaluation for a failure to understand or abide by the basic rules of academic study and inquiry. An instructor has the right to assign a final grade of F for the course if you plagiarized a paper for a portion of the course, even if you have successfully and, presumably, honestly passed the remaining portion of the course. It must be understood that any student who knowingly aids in plagiarism or other cheating, e.g., allowing another student to copy a paper or examination question, is as guilty as the cheating student.

Note that 'plagiarized paper' also refers to examination papers in the context of Chem W1A, so cheating on any exams can result in an F for the course.

Examples

OK: Listening to lectures with another student.

Not OK: Working together simultaneously with another student when doing the ALEKS homework.

OK: Discussing online or offline the discussion question topic.

Not OK: Writing a piece together and submitting the same or slightly paraphrased text.

OK: Studying for the quizzes together.

Not OK: Taking the quiz with another student and discussing the answers to the questions.

OK: Researching the web or Googling a topic for a written assignment or discussion question.

Not OK: Copying or paraphrasing text from a website without citing the source.

When in doubt, ask a GSI or the professor. If these policies are violated, the case will be referred to the Dean of Students for possible further action as described in the Berkeley Code of Student Conduct.

Course Mail Etiquette (adapted from the information from the UC Davis, Div. of Student Affairs)

Please use the Course Mail system for communicating with your GSI and/or Instructor.

You are expected to write as you would in any professional correspondence. Email communication should be courteous and respectful in manner and tone. Do not send emails that are curt or demanding.

Your GSI should be your first point of contact if you have questions, comments, etc. If your GSI can't help you, he/she will contact the instructor on your behalf or you may contact the instructor directly.

Do not expect an immediate response (normally, a response will be sent within one business day). If your question is sent at the last minute it will not be possible to send you a response before an assignment is due or a test is given.

Participation

Write as in any professional correspondence. Limit your use of abbreviations and do not use acronyms except those used in class.

Keep on the topic at hand. If you have questions off the current topic, address these outside the discussion at office hours or by email with the GSI or instructor.

Your GSI will monitor and guide discussion sessions and frequently change the line of discussion. If you would like to refer to a previous line of discussion, you should make it very clear in your comments.

Be courteous to everyone in the chat-rooms and threaded discussions. Disrespectful remarks will not be tolerated.