

Table 1. Class Meetings

Meeting	Time	Days	Location
Virtual Lecture	2 hours / week	Asynchronous	Videos posted on Canvas
Office Hours	3 – 4 PM	Thursdays	<u>Zoom</u>
In Person Workshop	08:30 - 10:20 AM	Friday	G7
In Person Lab	10:30 AM - 1:20 PM	Friday	SC2204

Table 2 Instructor Contact

Instructor: Allan Wilcox, PhD	Contact: Use Canvas Inbox (preferred) Or by email: <a href="mailto:wilcoxallan@fhda.edu">wilcoxallan@fhda.edu</a>
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## Introduction

This class is the first quarter of the general inorganic, organic and biological chemistry course for students entering allied health fields. Introduction to General, Organic and Biochemistry I focuses on an introduction to general chemistry. The course opens with an overview of the scientific method and of chemistry as the study of matter and its transformations, followed by a discussion of measurement and unit analysis. The central topics include an introduction to elements, compounds, and types of bonding in compounds, leading into a survey of classes of chemical reactions and stoichiometric calculations based on chemical equations. Subsequent discussion of intermolecular forces and phases and phase changes leads into a consideration of the properties of gases (the limit of weak intermolecular forces), and the course concludes with discussions of acid-base chemistry and nuclear chemistry.

## Action Plan – What to Do.

Listed below are essential activities to successfully complete Chem30A.

### A. Before Our first Meeting Friday April 10.

1. Complete the Getting Started Module and Quiz on Canvas!
2. Review the Chapter 1 and Chapter 2 lecture videos posted on Canvas.
3. Purchase your code for Access Pearson,
  - ✓ See “**Required Online Resources**” below in this document.

### B. Each Week

1. Prepare for Friday Workshop.
  - ✓ Review the week’s videos (“Virtual Lectures”) posted on Canvas.
  - ✓ Study topics in the eBook that are covered in Lecture.
2. Prepare for Friday Lab.
  - ✓ Study the week’s Lab Page on Canvas.
  - ✓ Complete the Prelab Quiz due by 8:00 AM on Fridays.
  - ✓ See “**Lab Program**” below in this document for more information.
3. In Lab:
  - ✓ Complete your Lab Report (due at the end of lab).
4. Complete Access Pearson homework assignments.

5. Follow “**General Tips and Time Management**” below in this document.

### Policies for Chem30A

- You must bring a scientific calculator to each class meeting.
- Chem30A Class announcements are posted on Canvas.
  - ✓ Announcements include course information (e.g., schedule changes, reminders).
- Class Information will change as the quarter progresses.
  - ✓ It is your responsibility to keep up to date with Class Information.
  - ✓ We recommend setting **Notification Preferences in Canvas** to alert you (via email) when changes are made to the Canvas website.
    - ⇒ Set Canvas Announcements to be emailed directly to you.
- Participation in all lectures and lab meetings is required.
  - ✓ Lectures and lab meetings start promptly on time!
    - ⇒ Always follow the course schedule.
    - ⇒ Arrive *before* meetings start with time to prepare, ask questions, and take notes.
      - ♥ *Take notes to help master topics in Chem30A!*
- There are no make-up assignments.
  - ✓ Zero points will be given for all activities and assignments in the missed meeting.
- Any student with two or more absences from class meetings or who fails to turn in two or more assignments by due dates may be dropped from the course.
- If you must miss a class meeting, an excused absence may be given with verifiable documentation such as a note from your health care provider for illness or from your coach for De Anza sponsored sports activities.

### Required Computer and Online Resources

- You must have access to a computer and the internet with and an individual email address to complete this course.
- The Chem30A Canvas Website has your Chem30A lecture videos, course information, homework assignments, and current grades.
- Access Pearson on Canvas provides online resources (e.g. study help, short instructional videos, homework, and eText).
  - ✓ You must purchase your code for Access Pearson through the bookstore.
    - “Modified Mastering Chemistry with eText Student Access Code”.
      - The eText is: “General, Organic, and Biological Chemistry”, Owens, et.al.
  - ✓ **NOT REQUIRED** from Bookstore: “Bundle: Aktiv Chemistry - Quarter + Math Diagnostic”
- PDF Reader: You will need to be able to view PDFs for this class. You can download a free PDF reader if you don't have one already on your computer: Adobe Reader
- Convert documents to PDF. Free apps are available to scan assignments and convert to pdf. Several examples are listed below with links.
  - ✓ camscanner – “A mobile phone can do it all anytime, anywhere.”
  - ✓ Doc Scanner - Phone PDF Creator from Google

## Required Materials for Chem30A Labs

- You must bring a scientific calculator to each class meeting.
- You must complete Lab Safety Training before you can participate in the lab program for Chem30A.
  - ✓ Lab Safety Training includes 6 Videos, followed a Quiz to show your understanding of safety risks and hazards in the lab.
    - ⇒ You are given three attempts to pass the quiz.
    - ⇒ To remain enrolled in Chem30A, you must pass the Safety Quiz with a score of 100%.
- You must have approved eye protection: Safety Goggles or Safety Glasses.
  - ✓ Uvex Stealth Goggles are the best because they breath (have vents)!
  - ✓ Loner goggles may be available in lab.
- Lab Manual: Lab Instructions are posted on Canvas.
  - ✓ You must bring a copy of the lab instructions on paper or on your laptop computer to each lab meeting.
  - ✓ A copy of each Lab Report Form will be provided at each lab meeting.

## Grade for this Course

- Your course letter grade will be based on the percentage of possible points earned (% Score), as shown in the Table 3.

*Table 3 Letter Grade Categories based on % Score.*

Letter	% Score	Letter	% Score	Letter	% Score	Letter	% Score
A+	100-98	B+	89-88	C+	79-77	D	67-62
A	97-92	B	87-82	C	76-70	D-	61-60
A-	91-90	B-	81-80	D+	69-68	F	59-0

- Your % Score earned will be assigned by the weighted grade categories in Table 4.
- Grade categories are described in the next sections.

*Table 4 Weighted Grade Categories of % Score*

Category	Grade %
Participation	5
Workshops	15
Pearson Homework	10
Prelab Quizzes	5
Lab Reports	25
Exams	40
<b>Total</b>	<b>100</b>

### Participation (5% of Grade).

Actively engaging in activities and assignments in Chem30A is counted as participation.

Submit all assignments on time to show your active participation.

Participation points are deducted for:

- Absence from Class Meetings (100% Penalty).
- Late arrival (up to 15 minutes late, 30% penalty for each late arrival).
  - ✓ A student who arrives more than 15 minutes late will be marked absent.
- Sending texts or engaging in any online activity not related to Chem30A.
- Lack of participation in group work.
- Not starting lab work when instructed (immediately after the lab lecture).

### Workshops: Group Work (15% of Grade).

What is Group Work? Group work uses guided activities to teach chemistry concepts and apply concepts to more complex problems. The purpose of group work is to promote learning.

- Group work allows you to learn and apply concepts covered in Chem30A.
  - Workshops reinforce topics covered the week **before** class on Friday.
- Working in groups, students do most of the talking and problem-solving.
  - You will work in a group of 3-4 students to complete and report results from worksheets.
  - Successful group work requires effective communication and teamwork skills.
  - Your instructor monitors progress and helps when needed.
- Each student turns in their own completed Worksheet Assignment for grade.
- Worksheets Assignments are accepted past the due date with a 20% penalty per day late.

### Pearson Homework (10% of Grade).

- Homework is found under the "Access Pearson" menu on **Canvas**.
  - ✓ Access Pearson provides online resources (e.g. study help, homework, and eText).
  - ✓ The eText is provided by Access Pearson": "General, Organic, and Biological Chemistry", Owens, et.al.
  - ✓ You must purchase your code for Access Pearson through the bookstore.
    - "Modified Mastering Chemistry with eText Student Access Code for General for DE ANZA COLLEGE", \$48.00
  - ✓ **NOT REQUIRED** from Bookstore: "Bundle: Aktiv Chemistry - Quarter + Math Diagnostic"

## Lab Program

Labs in Chem30A are fun learning opportunities! Lab experiments demonstrate principles of chemistry taught in Chem30A.

- Lab Instructions are posted on the Lab Pages found on Canvas.
  - ✓ Study the Lab Instructions and complete the Prelab Quiz before each lab.
- Safety precautions will be discussed, and experimental techniques will be demonstrated during the Lab Lecture at the beginning of lab.
  - ✓ If you miss the Lab Lecture, you will not be allowed to participate in that lab.

## Lab Safety Policies

- You must complete the Lab Safety Training on Canvas by 8:00 AM on April 17.
  - ✓ Watch the **6 College Lab Safety Videos**.
  - ✓ Complete the Quiz. .
- Failure to complete ACS Safety Training will result in being dropped from the class.
- After one warning, failure to follow safety policies presented in ACS Safety Training or discussed in class will result in being dismissed from lab that day. **No Exceptions.**

## Prelab Quizzes (5% of Grade)

- Prelabs Quizzes are “open book” online quizzes with multiple choice questions, multiple answer questions, matching questions, and questions requiring calculations.
- The prelab quiz must be completed before lecture (12:30 PM) on the day of each lab.
- Prelabs Quizzes are found on Canvas, are based on lab instructions and materials presented in lectures.
- For each prelab, three attempts are allowed.
  - ✓ Your highest scored attempt is counted for your grade.
  - ✓ Prelab Quizzes close at 8:00 AM the day of the lab.
  - ✓ Late Prelab Quizzes are not accepted.

## Lab Reports (25% of Grade)

- Any modifications to requirements for lab reports or changes to experimental procedures will be discussed during the Lab Lecture.
  - ✓ *Be sure to take notes during the Lab Lecture!*
- Lab Report Forms will be provided for each lab.
- Each student must submit their own, original Lab Report Form.
  - ✓ You must complete your own Lab Report Form.
  - ✓ Do not rely on your lab partner’s observations and measurements.
    - You must verify all observations and measurements as the lab progresses.
  - ✓ You must make your own calculations
  - ✓ You must answer questions and state your conclusions in your own words.
- Completed Lab Report Forms must be submitted as **single** pdf file on Canvas for Grade.
- Lab Reports are accepted up to 24 hours past the due date with a 20% late penalty.
- You must receive a score greater than 59% for your Lab Reports Grade to pass Chem30A.

## Exams (25% of Grade)

- The average of your 3 exams counts as 40% of your course grade.
- The dates of three exams are listed on the class schedule.
  - ✓ **NO** make-up exams will be given.
- Study Guides are posted on Canvas “Preparation for Exam” Pages.
- Complete policies for exams are posted on Canvas “Exam Policy” Pages.

## General Tips and Time Management

- This is a fast-paced course - we cover new material every week.
  - ✓ You must practice effective time management to succeed in this course.
  - ✓ Staying caught up with the class work throughout the quarter is essential to understand the material and to receive a good grade.
- Chem30A has scheduled 7 hours per week of class meetings.
  - ✓ A general guideline for college chemistry courses is 2 hours of study for every hour of class meetings.
  - ✓ This means that the guideline suggests **14 hours per week of study outside of class** is needed for Chem30A.
    - You may require more or less time for study outside of class, depending on your learning style and previous experience.
- You will benefit the most from your studying if your time is spread out uniformly in short study sessions during the week rather than concentrated into one or two long study sessions.
- Also, if you read the corresponding sections of the textbook before class meetings this will really help reinforce concepts from class activities.
- One of the most effective ways to understand and remember what you are learning is to take notes.
  - ✓ For note taking tips: [How To Take Study Notes: 5 Effective Note Taking Methods](#)
- Procrastination and putting off doing work (rushing assignments, cramming for exams) will result in poor performance and will negatively affect your grade.

## Chem30A Course Objectives

- Solve scientific problems using dimensional analysis and report measured values to appropriate precision in standard or scientific notation.
- Examine the relationships between energy and matter.
- Examine the structure of the atom and summarize major properties of elements based on a discussion of the periodic table of elements.
- Examine the structure, properties and nomenclature of chemical compounds.
- Balance and classify chemical equations for common reaction types.
- Perform calculations based on stoichiometric relationships, given a balanced chemical equation. Examine the properties and behavior of ideal gases.
- Examine the chemical properties of solutions.
- Compare the properties of acids and bases.
- Discuss the theory and relevant applications of nuclear chemistry.

## Academic Integrity Policy

Common forms of academic dishonesty are plagiarism, fabrication, and cheating. When you submit answers as an individual (on prelabs, lab reports, quizzes, exams) it must be your own, original work. Any student found pursuing any form of academic dishonesty will be subjected to disciplinary action according to the guidelines described in the College Catalog. Any cheating or plagiarism will result in a zero grade and a report to the Office of Student Affairs for disciplinary action.

**Student Learning Outcome(s):**

- Solve stoichiometric problems by applying appropriate molar relationships.
- Identify the differences between elements and compounds and describe the chemical bonding in compounds- ionic vs. covalent.

**Office Hours:**

TH 3:00 PM - 4:00 PM

Zoom