

CHEMISTRY 1AB

Course Description

2003-2004

Course: Chemistry is the study of matter, its composition, and interactions. This is a college preparatory course designed for those students who intend to graduate from a four year college or university. It is a required course for those students (1) who plan to major in pre-med, pre-vet, science, or engineering, and/or (2) who wish to attend any University of California, California State University, or exclusive private university. The math used in this class includes scientific notation, ratios, algebra, exponents, and logarithms.

Standards: This course will be taught in accordance to and correlated with the *California State Science Content Standards for Chemistry*.

Prerequisite: Algebra 1AB (grade C or better) and Biology 1AB (grade C or better)

Topics:

- I. Atomic and Molecular Structure
- II. Chemical Bonds
- III. Conservation of Matter and Stoichiometry
- IV. Gases and Their Properties
- V. Acids and Bases
- VI. Solutions
- VII. Chemical Thermodynamics
- VIII. Reaction Rates
- IX. Chemical Equilibrium
- X. Organic Chemistry and Biochemistry
- XI. Nuclear Processes
- XII. Laboratory Exploration

Texts:

Course Text: Zumdahl, Introductory Chemistry: A Foundation, 4th ed.,
Houghton Mifflin, ©2000

Lab Manual: Wilbraham et.al., Chemistry: Laboratory Manual,
Prentice Hall, ©2000

Required Supplies:

Safety Goggles: Chemical safety goggles which completely enclose the eyes. Safety glasses or construction goggles with perforated sides are not acceptable. Goggles must completely protect the eyes from a full facial splash. Goggles are available from the EHS Science Department for \$6.50. **Payment must be made at the EHS Student Store.** Bring the receipt to your chemistry teacher and receive your goggles. You will not be allowed to perform an experiment without safety goggles.

Rubber Gloves: Thick rubber dish washing/cleaning gloves (Platex, Rubbermaid, etc.) are available at most grocery, department, and drug stores. Thin rubber surgery style gloves are not acceptable.

Scientific Calculator: A scientific calculator is required with the following keys:

\log , \ln , 10^x , e^x , EXP or EE, (()) or (), x^y or y^x or \wedge , x^2 , and $\sqrt{\quad}$.

The calculator should have a **display** with at least **10 digits**. For those students intending on taking Pre-Calculus/Trigonometry and Calculus in high school or college, a graphing calculator is highly recommended. Graphing calculators are now required for Calculus students by most colleges and maybe required for Pre-Calculus/Trigonometry and AP Calculus at Estancia. Please check with your math teacher about your future calculator needs. Calculators must be brought to class every day. **The teacher will not loan out calculators.** If you forget your calculator on test day, make arrangements to borrow one from a friend.

Codes of Conduct:

All students are expected to abide by the following guidelines for classroom behavior.

1. I will respect myself, my classmates, my teacher, and my environment.
2. I will come to class both physically prepared (with all necessary supplies and books) and mentally prepared (ready to work).
3. I will refrain from eating and drinking in the classroom.
4. I will refrain from talking during instruction.
5. I will follow all school rules, policies, and standards of behavior as stated in the Estancia High School Student/Parent Handbook.

Attendance: Attendance policy will be in accordance with Estancia High School Student/Parent Handbook.

Tardies: You are considered tardy if you are not in your seat at the beginning of class. You may only be excused from a tardy if you have made prior arrangements with the teacher for being late or if you have a signed and timed note from the teacher or administrator who retained you. Notes from parents will not excuse a tardy.

Absences: You will be considered absent if you are 15 minutes late to class. Students will receive a zero grade for any quiz or exam missed because of an unexcused absence or truancy. Absences can only be excused by the attendance office.

Grading:

Following is the guaranteed grading scale. This scale will never be lowered for lab reports and homework. However, scales for individual exams and quizzes, and the total semester grade may be adjusted downward as deemed appropriate.

Grading Scale

- A: 90%
- B: 80%
- C: 70%
- D: 60%

The proposed overall grade weight distribution will be as follows. This weight distribution may be slightly adjusted anytime during the semester as deemed appropriate.

<u>Grade Category</u>	<u>Percent of Total Grade</u>	<u>Weight Factor</u>
Exams	40%	0.40
Quizzes	20%	0.20
Laboratory	22.5%	0.225
Homework	12.5%	0.125
Class Participation	5%	0.05

The total semester grade is the sum of the products of each grade category percent and weight factor.

$$\text{Total Semester Grade} = (.40)(\text{Exam \%}) + (.20)(\text{Quiz \%}) + (.225)(\text{Lab \%}) + (.125)(\text{HW \%}) + (.05)(\text{Class Participation \%})$$

Example: A student has the following percents for each grade category.

Exams (88.4%), Quizzes (79.3%), Laboratory (92.5%), Homework (99.0%),
Class Participation (100.0%)

$$\begin{aligned} \text{Total Semester Grade} = & (.40)(88.4\%) + (.20)(79.3\%) + (.225)(98.5\%) \\ & + (.125)(99.0\%) + (.05)(100.0\%) = 90.8\% \end{aligned}$$

Grade Listing: Grades will be listed on a computer printout by student SID number. This computer printout will be kept in a 3-ring binder at the front of the classroom and will usually be updated after each exam. Final grades will be based on this computer printout. The student is responsible for verifying that the grades have been accurately entered into the computer.

Exams: All exams will be worth 100 percentage points. The final exam will count as two exams. The lowest exam score will be dropped from your semester average.

Quizzes: All quizzes will be worth 20 points. The lowest quiz score will be dropped from your semester average.

Laboratory: Laboratory experiments will be announced prior to the day of their performance. You are required to bring your lab manual, goggles, gloves, and closed shoes on lab days.

Lab Reports: Formal lab reports are worth 20 points and mini-lab reports are worth 10 points. All labs will required a formal write-up unless otherwise indicated by the teacher. Lab reports are due within the first 5 minutes of class one week after the last day the experiment was performed in the laboratory. If you are absent the day your report is due, you will turn it in within the first 5 minutes of class on the day you return. You are responsible for remembering to turn in your lab report.

Every student must write their own lab report. Members of the same group may have the same data, results, and conclusions, but their lab reports must be individual work. If two or more identical lab reports are turned in, each student will receive a zero grade for that lab.

Safety Equipment: Safety goggles must be worn at all times while performing laboratory experiments. Rubber gloves are recommended anytime you are handling toxic or caustic chemicals. Everyone on the laboratory side of the classroom, regardless of whether they are performing an experiment, recording data, cleaning up, or just observing, must wear safety goggles at all times. Safety goggles must be fitted snugly over your eyes, not over your forehead or around your neck. **Failure to continuously and properly wear safety goggles in the laboratory while experiments are being performed will result in the loss of 5 lab points.**

If you forget your goggles on lab day, you should make arrangements to borrow a pair from a friend in a different class. **If you have to borrow goggles from the teacher, you will lose 5 lab points.**

Lab Clean-Up: All lab equipment must be cleaned and put back in its assigned location at the end of each lab. The table tops must be wiped clean of all chemicals and excess water. Lab stations will be checked after each experiment. ***Failure to follow these clean-up procedures will result in the loss of 5 lab points for each group member assigned to the lab station.***

Homework: Each homework assignment is worth 5 points. Homework for each unit will be due within the first 5 minutes of class on the day of the exam for that unit. Homework turned in after you begin the exam will be considered late. All homework packets must have a cover page, be assembled in the order as assigned, and stapled. The cover page will include your name, period, and a listing of each assignment. ***Failure to follow these procedures will result in the loss of 5 homework points.***

Example of Assignment Listing:

HW #1: pp. 43-44, #2-36 even, 41

HW #2: pp. 61-62, #1-15 odd

HW #3: W/S 2-3

HW #4: pp. 75-77, #1, 4(b), 5, 7, 9(a,c), 10

If you have an excused absence on the day the exam, then your homework will be due just before you take the make-up exam. Homework turned in after you begin the make-up exam will be considered late. You are responsible for remembering to turn in your homework.

Make-Ups:

Exams:

1. If you have an excused absence for the day an exam was scheduled, you will take the make-up exam on the day you return to class.
2. If you were absent only one day prior to the day an exam was scheduled, you will take the exam on the scheduled date with the rest of the class. The day before an examine will always be review day and no new material will be covered.
3. If you have an excused absence for two or more consecutive days prior to the day an exam was scheduled, you will take the make-up exam one day after you return to class.
4. If you have an unexcused absence or truancy the day an exam was scheduled, you will not be allowed to make up the exam and will be given a **zero** grade.

Quizzes:

No make-ups are given for quizzes.

1. If you have an excused absence for the day a quiz was scheduled, you will receive a quiz score with the same percent as your cumulative semester exam percent. Remember that this quiz score will change as your exam percent changes throughout the semester.
2. If you have an excused absence for the day prior to a scheduled quiz, you may take the quiz or receive a quiz score with the same percent as your cumulative semester exam percent. Remember that this quiz score will change as your exam percent changes throughout the semester. Once you begin the quiz, you have made your choice and will receive the grade earned on that quiz.
3. If you have an unexcused absence or truancy the day the quiz was scheduled, you will be given a **zero** grade for the quiz.

Late Work:

Late work is any assignment not turned in with the class on the original due date.

All late work must be turned in personally to me. Do not put late work on my desk or in my mail box. Late work will only be accepted if it is put directly into my hands.

Lab Reports:

All lab reports are due within the first 5 minutes of class one week after the last day the experiment was performed in the laboratory. If you are not present the day the lab report is due, it is due within the first 5 minutes of class on the day you return. You are responsible for remembering to turn in your lab report.

You are required to write-up a chemistry experiment regardless of whether you personally performed the experiment or not. If you are not present the day the experiment was performed in class, you are responsible for getting the data from your lab partner. The lab report is still due one week after the last day the experiment was performed in the laboratory.

Late lab reports turned in 5 minutes after the beginning of class up to the first 5 minutes of the following school day will lose 50% credit.

No late lab reports will be accepted after the first 5 minutes of class one school day after they were due.

Homework:

Homework for each unit will be due within the first 5 minutes of class on the day of the exam for that unit. Homework turned in after you begin the exam will be considered late. Late homework turned in 5 minutes after the beginning of class up to the first 5 minutes of the following school day will lose 50% credit.

If you have an excused absence on the day the exam, then your homework will be due just before you take the make-up exam. Homework turned in after you begin the make-up exam will be considered late. You are responsible for remembering to turn in your homework.

No late homework will be accepted after the first 5 minutes of class one school day after it was due.

Class Participation: Every student is given one class participation point for each school day. Students are expected to come to class everyday with their textbook, notebook, homework, calculator, paper, pens, and pencil. Students are also expected to come to class on time, pay attention, take notes, do practice examples, participate in class discussions, perform lab experiments, work on homework and lab reports. Students are expected to behave in a manner which promotes a conducive learning environment. No talking is allowed during school announcements. Students in 2nd period are required to bring a book everyday for SSR and read this book during the entire 20 minute reading session. Failure to meet these expectations will result in the loss of class participation points. You can lose more than one class participation point per day.

Cheating: Looking onto someone else's paper, allowing someone to look on your paper, sharing information, using crib notes, sharing a calculator, or using a stolen test will be considered cheating. If you are caught cheating on a quiz or exam, you will receive a **zero** for that quiz or exam. This **zero** will not be dropped as your lowest score and will be included in your semester average.

Copying of lab reports will result in a **zero** grade for that lab for both students, the one doing the copying and the one allowing their paper to be copied. Copying labs reports from previous years will result in a **zero** grade.

The teacher may move and seat any student, anytime, anywhere during a test. The teacher may also randomly lift and shuffle through test papers and examine calculators to ensure that crib notes are not being used.

Cheating on a exam usually results in your semester grade being dropped by one letter grade. Cheating will be documented on your school discipline card and may severely affect your chances of getting into the top universities. Most colleges and universities are very intolerant toward academic cheating and many are rejecting any student with a prior history of cheating.

Be forewarned, cheating is not worth it!

EHS8.cdchem04

Class Participation

Every student will be given 100 class participation points at the beginning of each semester. Period 2 students will get an additional 100 points for SSR/SSW (200 points total). Class participation points will be deducted for any behavior that is not conducive to promoting a positive learning environment and outstanding academic achievement. Below is a partial list of the inopportune behaviors which will result in the loss of class participation points. It is possible for a student to have a negative total of class participation points at the end of the semester. In general, a student's overall grade will drop 5% for every 100 class participation points lost.

-5 points

cut or unexcused absence (if cut or unexcused absence is cleared, student must inform teacher to rebate loss points)

defacing classroom (writing on desks or walls, damaging equipment or facilities)

improper use of distilled water bottles (squirting water on the property or bodies of others)

-2 points

tardy

homework check – mostly incomplete

-1 point

homework check – partially incomplete

inappropriate talking in class

talking during announcements

missing class supplies (*e.g.*, textbook, lab manual, SSR Accelerated Reading book, class notes, learning log, calculator, pen, pencil, paper)

eating in classroom

drinking in classroom (water okay)

inappropriate electronic devices (*e.g.*, cell phone, pager, personal stereo)

playing electronic games (including on calculators)

playing cards

not participating in class activity

disrupting another student's learning

throwing anything in classroom

improper disposal of trash (leaving or dropping trash on floors or desks, stuffing trash in holes, drawers or shelves)

rude or deprecating behavior

whining or excessive complaining

not sitting in seat until final class bell rings