Syllabus  Chemistry 201A  General College Chemistry I  Cuesta College  Spring 2017  5 units

Dr. Greg Baxley
Office # 2306
546-3100 ext. 2669
gbaxley@cuesta.edu

Lecture (2402): TR 8:30–10:20
Lab in 2105
You MUST attend your lab section.

Lab times:
30684  T  12:30–3:20 pm    G. Baxley
30685  W  12:30–3:20 pm    L. Baxley
30687  R  12:30–3:20 pm    G. Baxley

Lab times:
30684  T  12:30–3:20 pm    G. Baxley
30685  W  12:30–3:20 pm    L. Baxley
30687  R  12:30–3:20 pm    G. Baxley

Course websites:
http://academic.cuesta.edu/gbaxley  course information
http://piazza.com/cuesta/spring2017/chem201a/home  Piazza discussion forum:

Office Hours: 2306: Monday 1:30–2:30, Wednesday 10:00–11:00 and 1:00–3:00
Prerequisites: Math 127 or intermediate algebra, AND Chem 210 (grade of “C”) OR passing 1 yr HS chem
Chemistry 201A Lab Manual and Course Packet available in Cuesta bookstore
Mastering Chemistry Online HW, free with new book, see Mastering Chemistry start page
Student Guide and Solutions manual are optional

1) A non-programmable scientific calculator for exams and quizzes with Exponential notation (EE or EXP on most calculators,) and logs (LOG and LN). No TI-8X series calculators for exams or quizzes.

2) Chemical splash goggles. Goggles must completely enclose the area around the eyes, without perforations on the outside. The goggles at the bookstore are a good choice.

Helpful Navigation Tips:

• If you have questions about homework problems, course material, lab experiments, use Piazza.

• If you need to find information about due dates, worksheet keys, files to download, check the 201A website.

• To find homework questions, log on to your Mastering Chemistry account.

Course Description: This is the 1st semester of a one-year course in chemistry for science majors. In this class, you will gain technical perspective for current issues, develop problem solving skills, and learn about how the behavior of stuff you see can be explained with knowledge of the world of atoms. Real-world examples and hands on learning will be emphasized. The course is designed for students who have been successful in previous chemistry courses, and requires diligent study habits, good attendance, and a positive attitude.

This class is a heavy load, and constitutes a part time job, so schedule your time appropriately. Many successful students report that they commit 7 hours in class plus 7-10 hours out of class for Chem 201A alone. You may be overwhelmed if you have 16 units and work 15 or more hours a week.

Attendance is mandatory. Students who attend class regularly learn more and are less stressed. Material and discussions may be presented in class that cannot be found in the text. Laboratory attendance is even more critical. Excessive absences (missing 6 lectures, 3 labs, 2 quizzes, or 2 exams), tardiness (chronic lateness), or neglect of coursework (below 50% in the 8th week, or missing 5 assignments) may result in a drop. Missing 3 or more lab experiments will result in a non-passing grade. You are responsible for obtaining any course work or schedule changes missed during absences.

Assistance: I am here to help you learn and enjoy the course material. If you are having trouble, please come and see me early and often. If you cannot come to office hours, please use Piazza for questions. I encourage relevant questions during lecture and lab periods.

Withdrawal: If you discontinue the course for ANY reason, you are responsible for making an official withdrawal. You must also check out of your lab drawer.

Classroom Etiquette: Please be considerate of your other classmates. Some students are easily distracted, so I ask that you arrive on time, ready to learn, and do not depart early. Students who disrupt the class will be asked to leave. No talking, and turn off your phone while in class. No texting during class. Audio or video recording is prohibited unless you submit a permission form.
Evaluation:

**Homework Quizzes:** Chemistry is best learned by regularly practicing problems. Short quizzes with problems very similar to HW problems are designed to motivate you to keep up with the reading and to complete the homework to the level of understanding. Your lowest quiz score will be dropped. There are no early or make up quizzes unless you must miss class for mandatory Cuesta team or course events, or for legally required absences (like jury duty).

**Homework:** Assignments of required and suggested problems will be provided on the course website for each chapter and will be assigned via Mastering Chemistry. The required problems represent the bare minimum; you are strongly encouraged to answer the suggested problems for extra practice. Think of it as a challenge to get them all right eventually. Don’t slack off and skip the suggested HW. Don’t let others do your homework for you; do some practice on your own.

**JITL:** “Just In Time Learning” assignments may be announced in class, usually due one class period later. These will be a few problems collected at the beginning of a specified class. They will be announced 1 class day ahead of time. Not all JITL’s will be collected, but be ready!

**Exams:** There will be four exams throughout the term (see schedule) and a comprehensive final exam. Make up exams will only be considered for absences with prior approval. At the instructor’s discretion, the make‐up midterm may be administered during finals week.

**Labs:** Most labs have a prelab assignment that must be completed before the lab starts, plus data and report sheets. Your lab instructor may have slightly different requirements. Incomplete prelabs may result in dismissal from that lab. There are no make up labs, but the lowest lab score will be dropped. You must attend your designated lab.

**Approximate Point Distribution:**

<table>
<thead>
<tr>
<th></th>
<th>Approx %</th>
<th>Approximate Letter Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes (top 6 of 7)</td>
<td>120 10%</td>
<td>A–/A 90.00-100%</td>
</tr>
<tr>
<td>HW</td>
<td>120 10%</td>
<td>B–/B/B+ 80.00-89.99%</td>
</tr>
<tr>
<td>Midterms</td>
<td>500 34%</td>
<td>C/C+ 72.00-79.99%</td>
</tr>
<tr>
<td>Lab assignments</td>
<td>325 24%</td>
<td>D 65.00-71.99%</td>
</tr>
<tr>
<td>Final</td>
<td>300 22%</td>
<td>F below 65%</td>
</tr>
</tbody>
</table>

**Approximate Point Total:** 1360

**Plus/Minus grades:** Cuesta College allows for +/- grading, which will be used at about the 2% margins at 80 and 90%, usually based on the final exam score (state law does not allow grades of “C−” at CA Community Colleges).

**Late assignments:** All assignments are due before a class period starts. Any assignment turned in late must have an NQA attached. Turn in late assignments after class is over. Do not disrupt the class by turning in late work. See the NQA directions.

**Academic Honesty:** Academic dishonesty in any form, including plagiarism, either party of copying HW or labs, falsifying lab data, or unauthorized aids on exams, will not be tolerated. Do not copy anyone else's work! This is not learning, it is cheating. If you violate the academic honesty policy, you may receive a “0” for the assignment AND an equivalent assignment, or an F for the course. Be sure to give proper citations when quoting or paraphrasing sources of information. See the Cuesta College schedule for official student conduct policies.

While you are encouraged to study in groups, assignments turned in must represent your own work, which means your own thoughts in your own words. No one learns effectively by merely copying someone else's paper.

It is allowed and expected that students will work together on lab reports and other assignments. It is also expected that each student will do their own work, and write their answers in their own words. A good way to work together is to talk about a question, discuss an answer, and then each person writes an answer in their own words. An unacceptable way to work together is for one person to say or write an answer, and then for another person to write the same answer.

**Special Note:** If you have any special concerns or disabilities that could affect your learning, please see me or contact DSPS at 546–3148 as soon as possible. DSPS testing forms must be submitted at least 2 days prior to testing.
### Spring 2017 Schedule

The schedule online will be the most current.

<table>
<thead>
<tr>
<th>week</th>
<th>Chapter and topic</th>
<th>Lab experiment</th>
<th>notes</th>
</tr>
</thead>
</table>
| 1    | 1/17–1/22 Ch 1, science and stuff | Exp 1: Scientific Data | 1/16 MLK day holiday Work is assigned this week!
| 2    | 1/23–1/27 Ch 2 what is stuff made of? | Safety, Check in, Exp 2: Density |                                          |
| 3    | 1/30–2/3 Ch 3 measuring reactions | Exp 3: Hydrates | 1/29 Sunday: Drop w/o W |
| 4    | 2/6–2/10 Ch 4 chemical reactions | Exp 4: Precipitates |                                          |
| 5    | 2/13–2/17 Ch 4 chemical reactions | Exp 4: Precipitates cont. | Friday 2/17 holiday |
| 6    | 2/20–2/24 Ch 4 and Acids/bases | Exp 5: Chemical Reactions | Monday 2/20 holiday Exam 1 Thursday 2-23 |
| 7    | 2/27–3/3 Ch 6 thermo 1 | Exp 6: Acids and Bases |                                          |
| 8    | 3/6–3/10 Ch 6 Thermo 2 | Exp 7: Acetic Acid |                                          |
| 9    | 3/13–3/17 Ch 7 electrons and light | Exp 8: Heat of Reaction |                                          |
| 10   | 3/20–3/24 Ch 8 periodic properties | Exp 9: Hess's Law |                                          |
| 12   | 4/3–4/7 spring break | spring break | spring break |
| 13   | 4/10–4/14 Ch 10 chemical bonding II | Exp 11: Molecular Models | 4/16 Deadline drop w/ W |
| 14   | 4/17–4/21 Ch 5 gases | Exp 12: Computer Models |                                          |
| 16   | 5/1–5/5 Ch 12 solutions | Exp 14: Solubility, Check out | Exam 3 Thursday 5-4 |
| 17   | 5/8–5/12 Review | final review in lab session |                                          |
| 18   | 5/16–5/20 Final Exam | the final is cumulative Tuesday, May 16 9:45 – 11:45 pm | Please don’t ask for a different final exam time |

This schedule is subject to change. Changes will be announced in class and posted to the website.

**Student learning outcomes:** Upon completion of this course, a student should be able to:

1. Describe the chemical and physical properties of a chemical substance based on the atomic and molecular structure including orbital theory, the type of chemical bond, and the shape of the molecule.
2. Evaluate and interpret numerical and chemical scientific information.
3. Solve stoichiometry problems, including mass/mass, mass/volume, and volume/volume relationships.
4. Communicate chemical concepts through the use of molecular formulas, structural formulas, and names of compounds.
5. Perform laboratory experiments based on gravimetric, volumetric, qualitative and instrumental analysis techniques and effectively utilize the appropriate experimental apparatus.
Policies and Procedures for Submitting Assignments

1) All assignments are due before the class or lab period starts on their due dates. If you need to miss class, I am happy to accept the assignments early. If you happen to arrive late, wait until after the class to turn in papers. Any assignment turned in late must have an NQA attached. Turn in late assignments after class is over. Do not disrupt the class by turning in late work.

NQA’s: No Questions Asked coupon. You may turn in an assignment with one coupon, one meeting day late. Good for HW or labs. One meeting day is usually one week for labs. Finish the assignment, turn in with the coupon stapled to the front directly to instructor.

LATE ASSIGNMENTS WILL NOT BE ACCEPTED WITHOUT AN NQA.

2) Write your name legibly in the upper right-hand corner of each page, and staple them together. Bring your work arranged, with your name, and stapled prior to class starting.

3) Please don't crowd your work. Use lots of paper so that I can easily follow all of your hard work.

4) Label each question/problem clearly, and if you promise to circle your final answers in a calculation, I will promise to find them. Always include proper units on all measured quantities and ratios. Just doing this simple item will surely boost your understanding and your score.

Example of neat work:

\[
5.00 \text{ mL CuSO}_4 \times \frac{1 \text{ L}}{1000 \text{ mL}} \times \frac{0.105 \text{ g}}{1 \text{ L}} \times \frac{1 \text{ mol CuSO}_4}{163.1 \text{ g}} = 3.22 \times 10^{-6} \text{ mol CuSO}_4
\]

5) Neatness counts! If I have to struggle to read your writing, you may not receive proper credit.

6) Work must be shown for full credit. You must have your units present. For written answers, use complete and concise sentences to state your point, and don’t use non-chemical abbreviations.

7) Study groups are encouraged, but remember that all work submitted must be your work and your work only. Copying someone else’s work, even if you don’t have time to do it yourself, or are stuck, or were in the same room as the other person while they did the work are examples of cheating. Writing down someone else’s calculated numbers is cheating. Do your own work, including work on a calculator. Violations of this will be regarded as cheating and may result in failing grades for cheaters and cheatees.

8) Students are often concerned that they do all of their homework, but don’t do well on exams. I find that these students often do all of their work with the aid of either a study group, tutor, or answer key. It is essential that you complete some problems on your own, without any help, so that you can gauge your own learning.

Mastering Chemistry:

Please see the web link on the Chem 201A website for information about Mastering Chemistry.
No Questions Asked Coupons (NQA)

The NQA coupon allows you to turn in an assignment late, it does not excuse you from doing the assignment.

**Staple coupon to front of the assignment when you turn it in.**

For Mastering Chemistry assignments, I will add about 48 hours to your due date. You can do the MC work at any time, meaning you can enter answers into MC the day after the assignment is due, and give me the NQA coupon the next day. Two coupons per student per semester. I keep track, so don’t bother making more coupons.

Give the NQA and assignment directly to instructor. Do not put it in a stack with other papers or it could easily get misplaced.

You must turn in the missed assignment one class period after it is due, along with the coupon. **Not accepted** for Prelab assignments.