

CHEM 3A Hybrid: Introductory General Chemistry.
Spring 2020
Thursday lab meeting PHY 77 11:00 – 1:50 PM

Instructor: Bill Blanken

Contact e-mail: bill.blanken@reedleycollege.edu using “Chem3A” in subject line, this helps keep the spam filter from rejecting the email if it comes from Yahoo etc., office phone is ext. 3341

Office hours will take place in PHY 81 Wed 10 – 12, Thurs 10 – 11am and a virtual office hour on Fri from 8:00 – 9:00 AM

Course Objectives: Chemistry 3A is an elementary survey course in chemistry including hands on lab work. It is designed to give the student a chemistry background for a wide variety of careers including agriculture, forestry, nutrition, nursing, physical therapy, teaching and other biological and health related fields. It can also serve as a prep course for chem. 1A.

Math 3A, CHEM 10 or high school chemistry and eligibility for ENGL 125 are strongly recommended... Many students attempt to take CHEM3A without any prior chemistry. This is possible, but it takes a lot of **hard work**. Start seeing a tutor right from the beginning if you're having problems. Students will need to be familiar with college level algebra before taking this course as there is a lot of math and critical thinking involved. I also cannot stress enough the importance of working outside of class in study groups. This can be very helpful to some students. At the minimum, exchange email addresses and phone numbers with other class members to help keep up with what's going on in class throughout the semester.

Study Recommendations: Chemistry 3A is a fully transferable college level chemistry course. As a subject chemistry is very challenging, and the generally accepted rule of thumb for study time outside of class is 2 – 3 hours of study for every hour of lecture time. So for chem 3A you need to expect to study 6 – 9 hours per week. Some students will require more and some less, this is dependent on the individual.

Text and Required Materials and Equipment:

- **Textbook:** Nivaldo J. Tro: “Introductory Chemistry”, 6th edition, ISBN-13: 978-0321910295, or whatever the current edition is in the campus bookstore. However, in order to save money the 3rd and 4th and 5th editions are acceptable as well. These can be rented or purchased through Amazon or other retailers. I also strongly recommend that the student purchase or rent the Student solutions manual that goes with the edition of textbook you are using. This will help with homework and studying for exams.
- **Safety goggles and lab coats are required for lab**, these can be purchased at the bookstore, online, or from other students. They are required for the first experiment, which takes place during the third week of school
- **You are required to either print out the labs from Canvas or purchase a copy set at the start of the semester**

- You will also need materials to take notes and a basic scientific calculator with “exp” (or “EE”) and “log” keys (\$10 or less at Walmart)
- **You are required to buy an access code to Masteringchemistry.com, you have until midnight on Jan 20 to purchase the code and set up Mastering chemistry or you will be dropped from the course**, this can be purchased bundled with the textbook or purchased by itself, directly from www.masteringchemistry.com

Lab procedure and experiment explanation: the experiments needs to be printed out or purchased as a pack. Prior to each lab meeting read the entire experiment and after carefully reading the lab directions and theory sections the prelab is to be completed. The prelab will be collected at the beginning of lab and is worth 40% of the experiment. The lab work and calculations to go with the lab and post lab questions are worth the remaining 60%. Each experiment is worth a total of 10 points. All of the work on your experiment must be legible to receive credit, if I can’t read it, I can’t grade it.

Laboratory Work: Lab work will follow as closely as possible the material discussed in the lectures. The student is required to complete all the assigned experiments; 50% of the final lab grade will include the average of the graded lab work. The other 50% of your lab grade is determined by the lab exam and the lab practical. The lab practical is a demonstration of your laboratory skill. Please refer to the lab schedule to determine which lab will be done during each lab period. **No makeup labs will be available after the week they were assigned, it is imperative that you attend every lab session.**

Important dates:

Monday Jan 20 – MLK day observance

Friday Jan 31 – Last to drop the course without a W

Monday Feb 17 – Washington day holiday observance.

Friday Mar 13 – Last day to drop the course with a W and avoid a letter grade

Easter Break Apr 6 - 10, No school

Final exam Tues May 21 from 5:30 PM – 7:30 PM

See the schedule of courses for additional dates and times

Lecture content: this course is the hybrid of the traditional chem 3A. The course content is delivered via narrated PPT lecture video. In addition to this material there will be additional material available and linked to. It is imperative to stay up and current with the course and to not fall behind.

Homework: Homework will be assigned for every chapter. It is essential to your success in this chemistry course that you do all the assigned homework and read the relevant chapters in your textbook. The homework is electronic, and can be accessed through the Mastering Chemistry website, using the access code that was included with the textbook. If you purchased a used textbook, you can purchase an access code to MasteringChemistry from www.masteringchemistry.com. There will be no make-up homework assignments, the first assignment will be extra credit; the total HW percentage a student can earn will not exceed 100%.

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible. I require that the request for accommodations be given to me 1 week prior to the event requiring accommodations.

Attendance: Attendance in lecture and lab is mandatory. If you are going to be absent, you must email me to let know of your upcoming absence to obtain an excused absence. A student will be dropped during the first 9 weeks of school if they miss a cumulative total of 2 weeks of class without permission. This is 2 lab periods. **If 2 weeks of absences are accumulated after the 9 week cutoff the student will be assessed a 10% reduction in total grade points at the end of the semester. For each additional week of absence an additional 10% reduction will be assessed.** Do not be late to lab, the door will be locked shortly after the start of class for safety purposes and you will be marked absent. Students wishing to be added to the course will only be added if space is available without exceeding the course capacity limit. In order to be eligible to be added after the first meeting of the course, only students who have attended every meeting since the start of the semester will be added.

Grading and Exams: There will be **4 exams** throughout the course of the semester. The 4 exams will be equally weighted and the lowest score will be dropped, this does not pertain to the final exam. **There are no makeup exams.** If for whatever the reason you cannot take the exam the day the rest of the class takes the exam, that exam will be the one that is dropped. The final exam is a **comprehensive final exam** covering all the course content of the semester.

The final grade is calculated as follows:

	Percent of total grade
Laboratory (30%) of total grade	Lab practical, acid/base titration 10%
	Lab reports and experimentation 15%
	Lab midterm 5%
Lecture Material (70%) of total grade	Exams 40%
	Final 20%
	Homework Assignments and in class quizzes 10 %

The grading scale to be used is **A** 90-100%, **B** 80-89%, **C** 70-79%, **D** 60-69%, **F** 0-59% Here is an example of grade calculation. Suppose a student earned a 65, 70, 78, 58 on the four exams and a 69 on the final. They received a 78 for the lab and an 85 for the homework. All the scores are in percent. The test score of 58 would be dropped and the average calculated for the remaining 3 scores, 71%. The calculation for the final grade percentage is:

$$\frac{71\%}{100} \times 40 + \frac{69\%}{100} \times 20 + \frac{78\%}{100} \times 30 + \frac{85\%}{100} \times 10 = 74.1\%$$

Please be aware of the following rules:

- Although key points of the syllabus and schedule are discussed on the first day of the semester, it is the student's responsibility to be aware of the content of the syllabus.
- Tardiness and leaving early during lecture or lab sessions are considered disruptive behavior and will result in an absence being recorded. Students will need to sign the sign-in sheet within the first 5 minutes of class. If a cumulative total of 2 weeks (2 class meetings) of absences is recorded, the student may be dropped.
- Shortly after the beginning of lecture and lab and door will be closed and locked, do not be late to class or lab as it is disruptive and a safety hazard in lab.
- Texting in class is discouraged and if it is disruptive to the people around you, you will be asked to leave and be given an absence for the day.
- Loud disruptive talking or visiting during the lecture is not permissible, and if it occurs the students involved will be asked to leave and will be given an absence for the day.
- Cheating during exams is graded with a zero and will be reported to the Dean and other appropriate administration officials. Cell phones are prohibited during exams; if a cell phone is observed during the exam the student will be awarded a zero for the exam and this will not be the exam that is dropped.
- Copying of homework, experimental data, and lab reports is considered fraudulent behavior for both the copier and the originator.
- Turn in lab reports before the end of the lab period.
- Late lab reports will not be accepted.
- Lab materials left at home or in the car etc. will not be accepted after the lab period.
- Homework is through Masteringchemistry.com; No alternative homework will be given.
- **No extra credit will be given except on the exams.**
- Dangerous behavior in the lab will result in the student being asked to leave the lab. Come prepared to lab, this includes lab coats and safety eyewear.
- Please silence your cell phones during lectures so as not to disturb the class. No cell phones or iPod will be allowed during exams.
- A cumulative total of 2 weeks of absences could result in being dropped from the course

In the lab:

- **Attendance to the lab is mandatory, coming late will result in the student not being allowed to perform the experiment, coming late is a violation of standard safety protocol.**
- Cleanliness in the lab is very important in preventing accidental contamination. At the end of each lab thoroughly clean work area by disposing of loose paper and wiping countertops. Points will be deducted from experiment if work area is left messy.
- Safety glasses and lab coat are required to be worn whenever somebody near you is conducting an experiment.

- No experiments may be conducted without the instructor or teaching assistant present
- No horseplay or unauthorized experiments. Do not taste any chemical or smell any chemical directly.
- No visitors inside the lab. You need to go outside to meet with them.
- No food or drinks allowed.
- Backpacks should not be left on the floor where others can trip over them.
- Closed toed shoes must be worn in the lab at all times, no sandals.
- Long hair should be tied back so it will not fall into chemicals or flames.
- If any accident occurs in the lab, inform your instructor immediately and follow safety procedures. (To be discussed during first lab period)
- Clean up any spills promptly (Clean-up procedures will be discussed during first lab period)
- Do not point the open end of a test tube towards anybody
- Turn off flames when working with organic solvents. Dispose of them in waste bottles in the fume hood, not down the sink.
- At the beginning of each lab your instructor will inform you of any special safety precautions and how to dispose of used chemicals. You need to be on time for the lab so that you hear these instructions.
- Do not dispose of matches, paper or solid chemicals in the sink. Use the large evaporating dishes for spent matches.
- Put broken glassware in the “broken glassware container”, not with the trash.
- Before leaving the lab, wipe the desktop and wash your hands with soap and water.