

## **CHEM 3A: Introductory General Chemistry.**

**Fall 2015**

**Lecture: MW 1:00 – 2:15**

**Lab: M or W 2:30 – 5:20**

**Instructor:** Bill Blanken

**Contact info:** 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:** Office hours will be held on Tues, Thurs from 11:00 – 12:00 in PHY 81 and a virtual office hour on Friday from 8:30 – 9:30. The virtual office hour is conducted via email.

**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 103 is a required prerequisite, CHEM 10 or high school chemistry and eligibility for ENGL 125 are strongly recommended.** Many students attempt to take CHEM3A without any prior chemistry. It 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 and is treated as such. As a subject chemistry is very challenging and the general 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”, 5<sup>th</sup> edition, ISBN-13: 978-0321910295. However there are 5 different editions currently available and these can be purchased online. The textbook is required. It is not necessary to purchase the most recent edition. I also strongly recommend that the student purchase a Student solutions manual ISBN-13: 978-0321949073. This will help with homework.
- **Safety glasses and lab coats are also required for lab,** these can be purchased at the bookstore, online or from other students.
- 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) along with a laboratory notebook which can be purchased at Amazon or the bookstore.

**Lab procedure and experiment explanation:** the labs for each lab period will be available on the chem. 3A Blackboard site for download. These are to be printed out and read in advance of coming to lab. After carefully reading the lab directions and theory sections the prelab is to be completed and the lab procedure is to be summarized and written out in an easy to follow outline format before coming to class. When writing out the lab procedure have in mind what information would be needed to conduct the experiment. You will be conducting the experiment entirely from your own notes. The prelab and the procedure must be done before coming to lab. These will be checked at the beginning of lab and are worth 50% of the lab. If neither are completed before lab the student will be given a 0 for the lab, 2 zeros or unexcused absences from lab will result in the student being dropped. The grade breakdown for each lab is as follows, 30% for prelab completed correctly, 20% for the procedure being done before class and correctly (if it's not legible I can't grade it) and 50% for the lab and calculations to go with the lab. The laboratory notes and calculations must be legible to receive full credit.

**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 average of the 2 lab quizzes and a lab practical, which is a demonstration of laboratory skill. Please refer to the lab schedule to determine which lab will be done during each lab period. If you know you need to miss a lab, attend the other lab section the same week. **No make up labs or make up lab quizzes will be allowed after the week they were assigned as the chemicals and equipment will no longer be available.**

**Important dates:**

Last day to drop to avoid a W: Friday Sept 4

Labor day observance: Monday September 7

Last day to drop the course: October 16

Veterans day observance: Tuesday Nov 11

Thanksgiving Break: November 26 - 27

Final exam: Wed Dec 16, 1:00 – 2:50

See the course schedule for additional dates and times.

**Lecture Notes:** The ability to listen carefully and to take good lecture notes is an essential college skill. Class notes will be disseminated through the Reedley College Blackboard site, these should be printed out prior to coming to class as we will use these in class. If you choose not to print out the provided class notes be aware the speed of the course will not be slowed to enable you to keep up with your note taking. **You should also expect to take your calculator to class every class period, this is due to an extensive amount of classroom problem solving will be done.**

**Homework, Quizzes and Group work:** 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 Mastering Chemistry that was included with the textbook.

There will be no make-up homework assignments, but I will make the first assignment extra credit but the total HW percentage will not exceed 100%. Do not copy your homework from somebody else. You only learn by doing the homework problems for yourself. You can ask other students or get a tutor to help you if you have problems. There may be several quizzes over the course of the semester and these will often be “pop” quizzes with no advance warning and there will be no make up quizzes. These quizzes will cover what is gone over during the preceding lecture.

**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. Students may be dropped automatically if she/he misses a cumulative total of 2 weeks of class without contacting the instructor. No make-up exams will be given without documentation for serious and compelling reasons, like a documented medical emergency. Do not be late to lecture or lab, the door will be locked shortly after the start of class. Attendance is particularly vital during the first 3 weeks of the semester in order to determine course census. If a student misses 2 out of the 6 sessions during the first 3 weeks they will be dropped.

**Grading and Exams:** There will be **4 exams** over the course of the semester. The 4 exams will be equally weighted and the lowest score will be dropped and the second lowest will be doubled, this of course 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 only possible exception to this rule is a valid medical emergency with documentation to verify the medical emergency complete with contact information for the medical personnel who wrote the note. If an exam is missed and a make up is allowed the make up exam will be different than what the class completed and the exam will be more difficult. There will also be a **comprehensive final exam** at the end of the semester covering all the course content of the semester.

The final grade is calculated as follows:

Laboratory (30%) of total grade	<b>Lab quizzes 10% 2 quizzes</b>
	<b>Lab practical, acid/base titration 5%</b>
	<b>Lab reports 15%</b>
Lecture Material (70%) of total grade	<b>Exams 40%, 4 exams</b>
	<b>Final 20%</b>
	<b>Homework Assignments and in class quizzes 10 %</b>

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 in 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 58 would be dropped and the 65 would be doubled and the average would calculated for those 4 scores, 65, 65, 70, 78, which is 69.5. This calculation for the final grade percentage is:

$$\frac{69.5}{100} \times 40 + \frac{69}{100} \times 20 + \frac{78}{100} \times 30 + \frac{85}{100} \times 10 = 73.5\%$$

**Please be aware of the following rules:**

- Tardiness, leaving early during and 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 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 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 i-pods 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 need 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.
- No sagging, it’s disrespectful to yourself and to the people around you.

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.