

CH 302 Principles of Chemistry, 52440 Part 2, Spring 2010

Instructor : Dr. Sara Sutcliffe

Class Time : MWF 9-10am in WEL 2.224,

Office Hours : MWF 10-11am (starting in the classroom, moving to my office!)
I AM NOT AVAILABLE ON TUES OR THURS.

Office : WEL 3.304 (I might have to move this semester, note)

Telephone : 471-4544. If you want to leave a message, it's better to email me !

E-mail : emu@mail.utexas.edu

When emailing Dr. Sutcliffe include your first and last name as well as UNIQUE NUMBER of the course you are in. Do NOT call either Dr. Sutcliffe OR your TA's at home. EVER !

Teaching Assistants:

Amanda Hughes email amanda.jane.hughes@mail.utexas.edu

Office Hours: Tu 10-11 cubicle A, Th 10-11 cubicle B

John O'Brien email johnpatrickobrien@mail.utexas.edu

Office Hours: M W 11-12 cubicle C

Amanda will be your primary contact with regard to **exam regrades**. **Always** include your first and last name, EID and the version number of the exam AND YOUR CLASS UNIQUE in your emails to Amanda.

Course Text: Steven S. Zumdahl, Chemical Principles (6th edition e-book), Houghton Mifflin.

This is also the book for CH302. Frequent reference will be made to figures/data in this book. The e-book has extra features like short videos, pre and post chapter quizzes, and pop-up quizzes that you might like to try. The pre chapter test then suggests which areas you need to study the most. You will also get a loose leaf black and white printed version which you may like to bring relevant parts of to class. If you choose to get a used book, the figures and text are the same but you won't get the online content. It's your choice!

Course Webpages:

Blackboard: <https://courses.utexas.edu>

You are expected to check this **regularly** for any announcements.

The e-book version of the textbook can be accessed via the course Blackboard site.

Homework Server: QUEST: <https://quest.cns.utexas.edu/student>

Homework will be given via the server. Grades for all assignments except ALEKS will be stored there.

Grading for the Course: Grades for the course will be determined as follows:

| | |
|--------------------------------------|---|
| Homework (5%) | approx. 12 assigned, drop 2 lowest. On Web. |
| Class Exams (65%) | 4 exams drop the 1 lowest score |
| Final Exam** (30%) | Cumulative |
| ALEKS CH 302 (Bonus Option 1: 5%) | See detailed discussion. |
| Clicker Quizzes (Bonus Option 2: 5%) | Number TBD; 1 will be dropped. |

This sums to 105%, because the clicker OR CH302 ALEKS scores will be BONUS points.

** Or the average of ALL FOUR in class exams (see details later)

IGNORE ANY calculations of overall grade on Quest. It will likely show a lower value than this!

Letter Grading:

UT has adopted plus minus grading. Here are the borderlines:

| Grade | GPA | Score |
|-------|------|------------------|
| A | 4.0 | 93.00% - 100.00% |
| A- | 3.67 | 90.00% - <93.00% |
| B+ | 3.33 | 87.00% - <90.00% |
| B | 3.0 | 83.00% - <87.00% |
| B- | 2.67 | 80.00% - <83.00% |
| C+ | 2.33 | 77.00% - <80.00% |

| | | |
|----|------|------------------|
| C | 2.0 | 73.00% - <77.00% |
| C- | 1.67 | 70.00% - <73.00% |
| D+ | 1.33 | 67.00% - <70.00% |
| D | 1.0 | 63.00% - <67.00% |
| D- | 0.67 | 60.00% - <63.00% |
| F | 0 | <60.00% |

Note: It is possible that these cutoffs may move downward slightly at the end of the semester, based on the performance of the class as a whole. If you use these as a guide and strive to be above a certain cutoff, then you will not have to worry about how much the cutoffs change.

Course Description: This course starts with a brief review of the thermodynamics, then continues with physical and chemical equilibria, acids and bases, solution equilibria, electrochemistry and finally, Kinetics. NOTE: If you get a used book: **We do not follow a numerical chapter order.**

Course Prerequisites: C- or better in CH301. Its also a good idea to enroll in CH204K concurrently, or as soon as possible after taking CH302.

Attendance:

I will not be taking attendance. I may use activity on a clicker quiz as evidence of attendance if requested by the Dean's office or financial aid office in the event they request it. If you are late for class or must leave early, please do so QUIETLY!

Assignments:

1. Homework: We will assign and collect this over the web. The UT Homework Server (QUEST) is accessible from <http://quest.cns.utexas.edu/student> **READ the Student Instructions under "HELP". You may submit your answers any time up until the due date and time; DO NOT WAIT UNTIL THE LAST MINUTE!** Work the problems as I cover the material and submit a few at a time. Negative points are given for wrong answers (see the "help" link on the website) to prevent continuous random guessing. **Late submissions are not allowed.** Homework counts 5% of your grade and helps you understand the material. Start each assignment promptly so you can seek help if you have questions. Working with others is helpful sometimes, but note if **you don't understand the material, you will do badly on the tests!** The lowest TWO homework grades will be dropped. There are **NO MAKEUP HOMEWORKS.**

2. Exams: There will be four *EVENING* exams, from **7-9pm** on the following **Thursdays:**
****IMPORTANT: IF YOU HAVE A GENUINE CONFLICT WITH THESE EXAM TIMES DUE TO A LAB SECTION OR UT SANCTIONED EVENT YOU WILL BE **REQUIRED** TO PROVIDE DOCUMENTATION TO WEL 2.212 WITHIN TWO WEEKS OF THE EXAM****

Thursday February 11

Thursday March 11

Thursday April 15

Thursday May 6 *****LOCATIONS TO BE POSTED ON BLACKBOARD*****

We will have **review sessions** before each exam. Details will be announced on Blackboard. The lowest of the four exam grades will be dropped. If you miss an exam, **FOR ANY REASON**, it will be counted as a zero and that exam will be dropped. It does not matter why you missed the exam. It is your responsibility to make sure you get to the exam on time. No-one will be allowed to start the exam more than 30 minutes late and no-one will be allowed to leave the classroom until 30 minutes have elapsed. *****THERE ARE NO MAKEUP EXAMS*****. Some students feel their test scores do not reflect the amount of work they put in or their understanding of the subject. Tests are NOT like homeworks. They are done under stressed, timed conditions with NO help and very little time to ponder the questions. Remember what happens on game shows? You should think about this when reviewing for exams and developing test taking skills.

3. Final: Comprehensive. You must be present at the assigned time to take the exam. **If you miss the final exam, the average of all four of your in class exams will be used instead to calculate your grade.** TENTATIVE date information is at <http://registrar.utexas.edu/schedules/102/finals/index.html>. If you take

the final and do WORSE than the average of ALL FOUR of your in class exams, then I will use the four exam average. (THIS WONT SHOW ON QUEST!!) So taking the final can be seen as less of a risk!

BONUS POINTS: This semester, two options will be available. Both cost some money, so you can try one or both, or none! **WHICHEVER result gives you the HIGHEST score from 4a or 4b below will be used for the 5% bonus.**

4a. Clicker Quizzes: These will be given during some classes using **i-clickers**. If you do not already have one, you will need to purchase an i-clicker and then register it online at www.iclicker.com. Note: this model of clicker is being used by many UT instructors. I will not begin having quizzes until *after* the 12th class day but I may encourage you to use it before then for a non-graded 'poll' type question. You will have about 15 minutes to complete them (they will be short). The lowest grade will be dropped and the rest averaged to get your clicker score.; the exact number of quizzes remains to be determined.

NOTE: YOU are responsible for checking to see that your i-clicker is working properly. TOTAL Grades (e.g., for getting 4/5: 80%) will be posted on Quest within ~24hrs of the quiz. If you do not see a grade, then your i-clicker responses were not recorded. Specific enquires about responses to specific questions can only be addressed by seeing Dr. Sutcliffe during office hours. You will NOT be permitted to take quizzes on paper.

4b. ALEKS: Some of you may have experienced a CH301 version of ALEKS in addition to the mandatory PREP ALEKS all CH301 students had to take last semester. There is now a CH302 version of ALEKS! I have decided to use this in a pilot mode, that is, it will be for bonus points only, along with the 'safety net' of option 4a above. Unfortunately nothing you did in any prior version of ALEKS will carry into the CH302 ALEKS!! However, you again start with an initial assessment, but you should probably get a lot further through the basics -so you should not have to repeat very much 'old stuff' - unless you forgot it! Unfortunately this is not a free course, one semester's access code costs \$40. Some of you may have already purchased a two semester code. You access it from <http://www.aleks.com/> **The code for this course is MNFCV-GCVQG.** I found that the CH301 ALEKS greatly helped class performance last semester, so if you found it helped you, then you might like to participate in it again. I will group the topics to be covered into the approximate order in which we will be getting to them in the lectures and textbook, there is a little trouble with chapters 10 and 6 as you'll see. There will be deadlines to meet in order to encourage you to keep up with the material, but I have set them to start AFTER the 12th class day. These "Objective Deadlines" will be labeled to show which exam they are related to, but the deadlines may be a little later than the actual exam - particularly the first few, again, to help catch up. At the end, they will get closer to the exam dates. **I will drop the lowest two Objective Deadline scores and then average the remaining eight to determine your CH301 ALEKS score.**

Course Requirements: Your Responsibilities as a Student:

1. **TURN OFF YOUR CELLPHONE.** If you are expecting a genuinely important call (not a party or date), set it to vibrate and sit in the back so you can go outside.
2. **Acquire a NON-PROGRAMMABLE scientific calculator.** I'll discuss suitable calculators in class. **LEARN how to use it BEFORE the exam.** Show your calculator in office hours before the exam to check if we will allow it. You will **NOT** be allowed to use a cellphone or PDA.
3. **BRING the NON-PROGRAMMABLE SCIENTIFIC calculator TO THE EXAM.** **PROGRAMMABLE CALCULATORS ARE NOT PERMITTED IN EXAMS.** **NOTE: CALCULATORS WILL NOT BE PROVIDED FOR THE EXAMS.** If you try to use a programmable one, we will take it from you and you will finish the exam without it.
4. **If you acquire an i-clicker for use in quizzes, BRING IT TO CLASS.** If you don't have it you will not be able to take the quiz! Instructions for registering your Clicker via the web will be posted on Blackboard.
4. Get access to the book. There are options; I will mention these in class.
5. **Regularly check Blackboard and your email for messages.** (That's the email address **you provided with your EID**). I only email the class if I feel it is important (I hate spam). I will copy it on Blackboard.
6. Regularly check your grades on the HW server, especially after exams. Notify your TA **promptly** of any problems such as version number or EID bubbling error - see Regrades below.
6. **Keep ALL paper copies of exams given to you until the end of the semester.** No excuses. If your dog/cat/ferret/roommate likes to eat paper, I suggest you keep the exams somewhere inaccessible.

My Course Policies:

Regrades:

We will fix **genuine** errors on any assignment. There are **no regrades** for Homeworks. If you get the answer wrong on the first try and do not understand why, you should come to office hours. Do not email Dr. Sutcliffe or your TAs with open ended questions – instead, go to office hours. The due date for homeworks is set for the entire class, **NO EXCEPTIONS**. For EXAMS: If you make a mistake with your EID or version number, your TA will fix it but it is **YOUR** responsibility to email them **PROMPTLY** with your full name, your EID and your version number. On Quest, you will see an exam that does not match yours, and you will either have a **VERY** low grade like 15%, or a zero. **You MUST keep your exam**- we will have **NO** idea of the special code. If have lost your exam, you will **NOT** get a regrade and I will **NOT** give a makeup. If you misbubble an answer on the scantron but have the correct answer circled on your exam, we will **NOT** regrade the question, because the document has left the exam room. It is **YOUR** responsibility to check the scantron before submitting it.

Email Abuse (SPAMMING)

This class uses the Blackboard system to distribute information in the form of announcements and lecture notes. **ANYONE** who uses the bulk email to send a message which is *irrelevant* to **THIS** course (tickets, surveys, roommates etc.) **WILL BE PENALIZED ONE LETTER GRADE FOR EACH CASE INCLUDING THE FIRST OFFENCE**. Repeat abusers will also be pursued for further disciplinary action. Email abuse is discussed in more detail at <https://www.utexas.edu/vp/it/policies/aup/> specifically section V and VI.

“.....(Something bad) happened so I missed/ did badly in.....” It is important to realize that wanting a specific grade and actually getting the results to justify it are not the same thing. To be fair to **ALL** students, the details of this syllabus are applied **WITHOUT EXCEPTION**. People get ‘flu, break up with the love of their life, have their car break down, oversleep, etc. But we still have to go to work and do our job. I have given you the ability to drop one exam, one quiz, and two homeworks. If something very bad happens to you (such as a serious car wreck, a significant family member dies, or you become ill to the point of missing several weeks of school) during this semester you should go to your Dean’s office and explain your situation to them (and provide proof of this). They will communicate with me if they feel the situation is warranted. Depending on the situation, you may be allowed to drop the class or I may assign you an incomplete if I feel your performance in the class prior to the event justifies this. An incomplete (you must currently have a passing grade in order to qualify) means you will receive an X for your final grade. You will have to complete the missing assignment(s) which occurred as a result of the event in the following semester, or you will get an F. More details are available in the UT Course Schedule. However if your grades take a beating due to a mild sickness, you should work with a TA or myself and try to catch up as best as possible, but realize that it won’t be easy!

“I can’t take the exam/final on that day because”.... You are required to give me 2 WEEKS notice of an exam conflict (or potential conflict) for religious holidays or if you are a member of a UT sanctioned organization (the latter requires a letter). No exam can be taken late. If you have a lab section or other UT class that meets during the exam, you need to see Jeff Daily in WEL 2.212. He will verify your situation and then you will be allowed to take the exam at the alternative time of 4-6pm. If this is also unavailable Jeff will arrange another time on the same day. **ANY other reasons** will require you to go to your dean’s office and explain to them your situation, and **IF** they make a recommendation to me that I consider an alternative, I will consider it. You will have to provide proof to them of why you think you should be able to take the exam on a different day, and frivolous reasons will probably not be accepted. Basically, **DO NOT SCHEDULE ANYTHING during exams and finals!** More information can be found in the online General Information Catalogue published by the Registrar’s Office.

Cheating: In a word, **DONT!** I despise cheating and *will* penalize it. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in this course and /or dismissal from The University. Since such dishonesty harms the individual, all students, and the integrity of The University, policies on scholastic dishonesty will be strictly enforced. "Scholastic dishonesty" includes, but is not limited to, *cheating*, plagiarism, collusion, falsifying academic records, and

any act designed to give unfair academic advantage to the student, providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment), or the attempt to commit such an act. More info here: <http://deanofstudents.utexas.edu/sjs/scholdis.php>

UT Austin Policy on Accommodations:

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. We are happy to provide alternative testing rooms in Welch for those who qualify for reduced distraction and/or extended time. This DOES require advanced setup and documentation, again, at least two weeks if possible for the first case. If you are given a letter, bring it to me yourself and don't wait for campus mail. For more information on qualifying for accommodations, contact the Office of the Dean of Students at 471 6259, 471 6441-TTY.

UT Policies Regarding Quizzes, Exams, and Grading:

1. The use of programmable calculators is not permitted during quizzes or exams.
2. As stipulated in the University guidelines regarding exams, you may not leave the exam room for any reason during an exam and then re-enter the room to resume the exam.
3. You are required to keep your copy of all exams and quizzes. You will be asked to submit them to solve any grading related problems.
4. Scholastic dishonesty will be prosecuted to the full extent. It is the student's responsibility to find out what is considered as scholastic dishonesty. This information is available in the current issue of the General Information Catalogue published by the Registrar's Office.

Chapters Covered in this class and their Order (any adjustments will be posted on Blackboard)

(I *strongly* recommend you review Chapters 2- 4 on your own time!!)

UNIT 1: Physical and Chemical Equilibria: (tying together loose ends from several chapters)

Chapter 5, 9, 10 (brief initial review of relevant parts covered in CH301),

Chapter 10 sections 9-11, Chapter 16 sections 10-11. Chapter 17, Chapter 6

UNIT 2: Acids and Bases and Solution Equilibria: Chapter 7 & 8

UNIT 3: Electrochemistry & Kinetics Chapter 11 & 15 (may skip 15.7)

Suggestions to help you do well in this course: Pre-read before lecture. Check out the various online features of the e-book, if you have purchased it. Check Blackboard and your email for notices. Keep up with your ALEKS. Take class notes. Look at the course notes on Blackboard. After studying the material, do the assigned homework. **Don't submit at the last minute -or hour if you can avoid it!** Use the material soon and often -practice. When you work a problem, rework it using a different unknown. Divide huge scary problems into smaller chunks. Develop the ability to interpret equations rather than only using them to do one kind of problem. In other words, how does the equation summarize the concept? If you have exam anxiety, seek help, the UTLC has many resources. Don't be intimidated to seek help, you have choices: your lecturer, your TAs, the UT Learning Center, classmates, ALEKS, the e-book.... Don't get overwhelmed -Come to office hours!