

## CH302 Random Musings March 1, 2011

1. I do not have the final scores yet, but I am very pleased with the results from the first exam. The average for the class will be in the high 70s which is very good. I am even more pleased with the make-up exam that is the closest to the regular exam average in history, only differing by a couple points. There may be some questions tossed but off the bat there don't appear to be any obvious issues. Anyway, very good work. Way to step up.

2. There are two kinds of people in the world. Those who quit and those who don't. If you did not succeed as you would have liked on the first exam, appreciate that there is plenty of room to change things and turn your grade around. The 50 students who aced my final and got an A in CH301 can attest to this. So how do you turn things around? That is up to you. Look inward, figure out what is broken in terms of study habits, foundational background, test taking skills, priorities----and fix it. I am happy to meet with you to discuss your personal circumstances and what needs to be done, but don't waste my time unless you are serious about changing and don't walk in or out of the meeting with me thinking it will be easy.

3. There is a Quiz 3 the Tuesday before Spring Break. The question types for that quiz are:

- identifying buffers (after neutralization)
- simple buffer calculation
- buffer neutralization calculation
- strong acid/strong base titration calculation
- strong vs weak titration calculation (to buffer)
- strong vs weak titration calculation (to equivalence point)
- approximations in acid base calculations
- setting up complex equilibria calculations (mass and charge balance)

4. Thoughts on Quiz 3. You will notice that this quiz might be titled "**All the hard stuff in acid base chemistry that makes the second CH302 exam the one with the lowest average score every year.**" Kind of a long title but you get the idea. It isn't necessarily that the material is all that conceptually hard (thought is hard enough), but the real issue is that proving you know the material is so much more detailed. For example, to perform a buffer neutralization calculation takes about 30 steps and you can't get a single one wrong. The alternative is to learn the chemistry of these systems well enough to make the approximations that will help you avoid errors. But that only comes with a lot of hard work in understanding the material. Either way, getting some of this into your brain before spring break is the only way to survive exam 2 after spring break. You really can't expect to learn everything from scratch in the couple of weeks before the test while we are learning electrochemistry.

5. Oh, and did I mention the material on acids and bases comes to an end next week. Be careful what you wish for—after spring break we start electrochemistry and it will make you yearn for the days I put pictures of a giant red  $H^+$  on the board.

6. Recently posted material. I have placed a slew of worksheets on the web to help you with acid/base chemistry preparation. <http://laude.cm.utexas.edu/courses/ch302/worksheets302.html>

Many of these are in your course packet:

Of particular interest:

- Worksheet 5 is a nice primer on simple acid, base and solubility calculations (no neutralization here.)
- Worksheet 6 introduces the idea of how it is that approximations make it possible to solve acid base calculations.
- Worksheet 7 is an introduction to how much harder solubility problems can get.

- Worksheet 8 is a systematic survey of how the 7 steps to solving acid base calculations can be used from the very easiest to the very hardest problems.
- Worksheet 9 is a survey of polyprotic acid problems
- Worksheet 10 is an introduction to how you work the very hardest water chemistry problems (complex equilibria where there are multiple equilibria at work.)

7. I am hopeful that by the end of spring break Miranda will have video clips of each of these worksheets for you to use in your study. Similarly I am hopeful that Danny and Ben will have all of the video clips for exam 2 posted as well.

8. Material to be posted this weekend:

- A practice quiz 3 will be posted in the ChemPortal on Saturday.
- A practice quiz 3 will be posted by the TAs on Sunday.

9. For those of you planning to study over spring break, I will have the 30 question types from exam 2 ready for you next Thursday.

10. I have promised that there will be three extra credit opportunities this semester that will permit you to lower the cut scores for grades by up to three percent (one percent for each extra credit submitted.) Here is the first one.

Extra Credit 1. To earn 1% of your course grade that you can add to your point totals for the semester, complete the assignment below and follow the specific instructions given. This EC can be used to calculate exemptions. Depending on your method of grading, 1% will be worth 7 points for exemption, 10 points for overall course grade or 3 points if the final counts for everything.

Procedure:

- Complete the assignment below.
- Write it up (probably 100 words or so, but write as much as you want to tell the story.
- Submit it to my e-mail address: [dalaude@mail.utexas.edu](mailto:dalaude@mail.utexas.edu)
- **IMPORTANT.** You must title the extra credit: **EC1s11 Spring Break followed by a space followed by your uteid**
- (If you do not use this EXACT subject you will not be filtered into the file from which I assign extra credit.)
- Due Date: Friday, March 25<sup>th</sup> at 11:59 pm.. I am going to be strict about the deadline this semester. You will receive an e-mail reminder over the break and one in the musings afterward.

Extra Credit Assignment:

During spring break I want you to teach a science-hater something interesting about chemistry that you learned in this class. To get the points, the person you teach has to say to you, “gee, I had no idea chemistry was that interesting” when you have finished (you can make them say it even if they don’t mean it). You can choose what you teach but it should be something of interest and utility that you have learned from your experiences with chemical and physical equilibria.

11. Public Service Announcements.

Students for Clean Water has a goal is to raise \$40,000 to build wells for schools in Ethiopia to give them clean water for the first time. We have an amazing opportunity by being able to pair up with Google! For the next two weeks, anyone who signs up through our website at [www.studentsforcleanwater.org/hotpot](http://www.studentsforcleanwater.org/hotpot) and registers with Google's new product "Hotpot" can do ratings and reviews of almost anything- for every rating/review done SFCW gets a dollar! I've attached some more information and visuals. Thanks so much for advertising for us!

Prize for Winning Team! Three Games Guaranteed!  
Free Food!

IMSAA

Ismaili Muslim Student Association  
Presents

# DODGEBALL

Tournament  
At Anna Hiss Gym

Proceeds will go to Aga Khan Foundation, a non-profit organization dedicated to finding sustainable solutions to poverty, hunger, illiteracy, and ill-health.

Sunday, March 6  
11:45 am-6 pm

Teams of 6  
\$50 per team

Sign up at: <http://studentorgs.utexas.edu/imsa/dodgeball/>



## THE ULTIMATE STUDENT SURVEY (SERU)



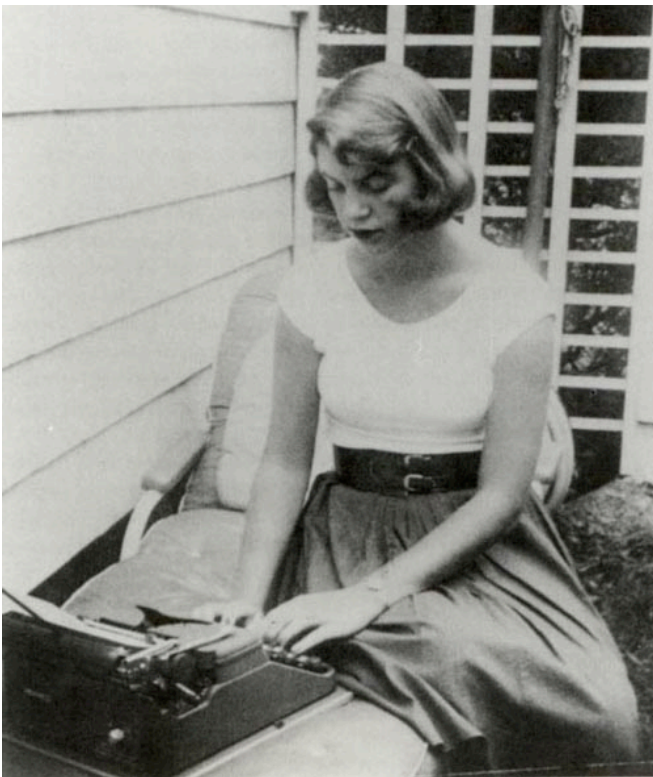
- ✦ Take the Ultimate Student Survey (SERU) when it hits your email in-box – click the link and go!
- ✦ Those who complete the survey are eligible to win: an iPad, \$250 towards books, tickets to athletic events, and more!
- ✦ Describe your experiences and express your perspectives about life on the 40 Acres
  - + Impact YOUR campus
- ✦ Find more information at: [www.utexas.edu/seru](http://www.utexas.edu/seru)

12. Poetry Corner. I promise that after this week, and for the rest of the semester, we will have silly, happy, positive poetry. But not this week--this week, more hate poetry. We start with a poem by a classmate of yours:

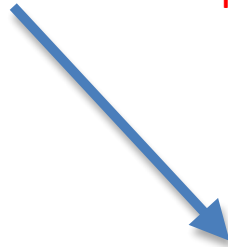
Everyone has Sins, the seven deadly,  
your sin is Envy.  
I am no different, for I have Sin too,  
my Wrath for you.  
Your perverse arguments couldn't take her.  
My absence didn't let you claim stake to her.  
Old friend, the scales were cast off from my eyes,  
You slimy serpent,  
giver of Sin,  
I despise.

You could have learned from Tantalus,  
take your Lust elsewhere.  
You could have learned from Dante,  
for you in Hell is a circle there.  
Not even pills in her drinks inebriated her to sway,  
But no proof, so we leave that garden, my Sin to stay.  
Old friend, the scales were cast off from my eyes,  
You slimy serpent,  
giver of Sin,  
I despise.

And of course, the master of hate poetry, Sylvia Plath, who let her husband, British Poet Laureate Ted Hughes, know just exactly how much she hated him by committing suicide.



despise



## **The Rabbit Catcher**

It was a place of force—  
The wind gagging my mouth with my own blown hair,  
Tearing off my voice, and the sea  
Blinding me with its lights, the lives of the dead  
Unreeling in it, spreading like oil.

I tasted the malignity of the gorse,  
Its black spikes,  
The extreme unction of its yellow candle-flowers.  
They had an efficiency, a great beauty,  
And were extravagant, like torture.

There was only one place to get to.  
Simmering, perfumed,  
The paths narrowed into the hollow.  
And the snares almost effaced themselves—  
Zeros, shutting on nothing,  
Set close, like birth pangs.  
The absence of shrieks  
Made a hole in the hot day, a vacancy.  
The glassy light was a clear wall,  
The thickets quiet.

I felt a still busyness, an intent.  
I felt hands round a tea mug, dull, blunt,  
Ringing the white china.  
How they awaited him, those little deaths!  
They waited like sweethearts. They excited him.

And we, too, had a relationship—  
Tight wires between us,  
Pegs too deep to uproot, and a mind like a ring  
Sliding shut on some quick thing,  
The constriction killing me also.