

A Very Brief Random Musings—April 28, 2011

1. You all did extremely well on the last quiz, with an average of over 80% and nearly 200 students getting perfect scores. It looks like things are setting up well for exam 3, though the electrochem and kinetics questions on the exam will be a bit more of a challenge.

2. There is an exam 3 next week with the usual details to follow on Tuesday. One big issue to keep in mind: Technically the make-up exam 3 shouldn't occur during dead days after the last day of class. I try to argue it with the Registrar but they are never pleased. So here I the compromise: Examination should not occur during dead days after the last day of class and can occur only under the most extreme of circumstances. So I can offer the make-up on Sunday night, May 8, only to students with a valid conflict. So you are expected to take it Thursday night May 5 unless you provide evidence, not just that a class is scheduled, but that it is actually meeting that night.

3. The following are true as we get ready for the exam 3:

- I will have a practice exam ready on Friday evening or early Saturday morning
- The TAs will have a practice exam ready on Sunday.
- The exam is calculator free.
- My help sessions are in the classrooms
- I will have a review session on Monday evening at 9 pm in this room.
- Travis will have a review session on Tuesday evening. Specific details will follow.

4. Question types for Exam 3 are repeated below:

Question Types for Electrochemistry

1. balancing a chemical reaction in acid or base
2. assigning cell convention in an electrochemical cell
3. understanding the table of standard half cell reduction potentials
4. Nernst equation calculation
5. ranking oxidizing and reducing agents
6. electrolysis
7. stoichiometry calculation using the Faraday
8. current calculation
9. calculation involving relationship between E, K and ΔG
10. famous battery
11. rust in the real world

Question Types for Kinetics

12. calculating reaction rates
13. method of initial rates
14. integrated rate law calculation
15. integrated rate law calculation (half life)
16. extracting information from straight line plots
17. kinetic theory—collision
- 18 kinetic theory—transition state
19. combined Arrhenius calculation
20. reaction mechanisms

21. reaction mechanisms

22. E_a and energy profiles

23. famous catalysts

Descriptive Chemistry

24. properties and reactivity of alkali metals
 25. properties and reactivity of alkali earths
 26. properties and reactivity of the B family
 27. properties and reactivity of the N family
 28. properties and reactivity of the C family
 - 29 properties and reactivity of the O family
 30. properties and reactivity of the halogen family
 31. famous named chemical manufacturing processes
 32. famous named chemical manufacturing processes
 33. identifying famous gemstones
- ### Organic Molecules
34. hydrocarbon isomers
 35. naming organic molecules
 36. naming organic molecules
 37. organic polymer structure
 38. organic polymer reactions
 39. biomolecule structure
 40. biomolecule reactions

7. Get those extra credits in—there are plenty of scholarly lectures going on right now but they tend to wind down as the semester draws to a close. Please make it a point to earn back the last 3% of your course grade, basically worth a + or a - grade just for getting them in.

8. I will have a massive random musings for the class next Thursday to explain everything about the upcoming exams, finals, grading. Also I will give you a chance to indicate to me whether there is anything I need to know about grades or nonacademic stuff on a form you will return. It is important that you come to know how the course will end.

9. Poetry Corner Part I. I believe that by the time I pass on to the other side, I will have enough poetry written about my course to publish a couple volumes worth. And if everyone who ever took this course bought a copy, we're talking New York Times Best Seller. Here is some love and some hate poetry about CH302, and a poem about struggle.:

Pronounced Dead as of May 13th 2008

As the death of finals creeps over me
I sit and wonder how this can be
Why did I not try a LITTLE harder to exempt
Study a LITTLE bit more, the pain would have been temp.
But now, I must suffer through this chemistry smog
It's hurting my brain; I need a catalytic converter to clear the fog
And I'm regretting all of those stupid decisions
Because now I have no choice but to learn about molecular collisions
And rates, and methods of reactions galore
Good thing Ochem isn't as hardcore
What keeps me going is after this test I will be free once again
To live my life, go out and have some fun with my friends!
I'll say goodbye; RIP general chemistry 302....
Until the MCAT where I will meet the ghost of you.

--Anonymous

Dr. Laude, please fail me.

Oh my, can you believe it? The semester's end is near.
The thought of no more CH 302, makes me shed a big tear.
Nay, not one tear, but many you see,
Because life without Laude and Co. is like Moses without the sea.
We started with struggling with quantum numbers last Fall
Oh how I'll miss the laser pointing to the chart on the wall.
From the wet T-shirt contests using nothing but acid
To the osmotic pressure that makes fish opposite of flaccid
I enjoy every part, everything that you say
Even when you took my \$100 calculator away.
Every time I remember our days are nearly through
My heart splits in half, as if it has a Van't Hoff factor of 2.
The same goes for your TAs, who put Einstein to shame
Especially that Travis although his beard was rarely tamed.
So, yes. You can say that I am fond of you
But please don't confuse me with that one girl...Lulu.
You see there is nothing that I would love more,
Than instead of taking 2 semesters of Chem., to take 4.
So now, Dr. Laude, I humbly request
To please take my A and make it an F.

It's bitter cold here in the dark all alone
I miss you every minute of every day.
How can this be?
Can't seem to get away from this empty feeling.
Dragging on Day in and Day out.
Nobody knows, nobody wants to know
Would they understand the pain, the tears, the questions?
Can they accept the past?
Will future he accept me?
Forever on this path. Desolate and hard and full of mistakes.
Cracked and dry with no life for miles to come. Just dirt.
Is forgiveness anywhere to be found?
The darkness is closing in every second.
It is getting harder and harder to breathe
But the numbness is still here.
Will I feel again? Will I trust or love again?
Gone forever are those days of enjoying life
Now looking at it through a strange view. How lonely and cruel it can be.

Some say I don't know pain some say I am spoiled
I know. I try to be brave. Mask my face every day.
But that girl they see I don't even know her.
She is witty and happy. She is always looking people in the face.
It is wrong. Out of place.
The girl I know looks for adventure in the wrong ways. Just to escape.
She gets scorned with every move and step she takes.
Somebody save her. Give her a sign. Tell her it will be alright.
Maybe it's too late. It's hard to have faith, hard to see what's really there.
When she's gone, what will they say? All nice things. Because they never really knew her.
Never knew her secrets never knew what she needed.

But no she won't go. Not today.
Instead she will keep being who they want her to be.
She will keep trying to make it right.
Maybe eventually someone will see
Someone won't buy it. And she will be set free.
She will find that flower alone on her path and will comfort it
And will be comforted by it.
Together they will go and live.
Together they will just be
Free from society.

Poetry Corner—Part II. Arbor Day is coming. Did you know we have Nebraska to thank for Arbor Day? Arbor Day is a nationally celebrated observance that encourages tree planting and tree care. It was started by J. Sterling Morton in Nebraska in 1872. Although the actual day changes from state to state and even city to city, National Arbor Day is celebrated each year on the last Friday in April. The first Arbor Day was celebrated in the state of Nebraska in 1872, in response to a state proclamation urging settlers and homesteaders in that prairie state to plant trees that would provide shade, shelter, fruit, fuel, and beauty for residents of the largely treeless plains. Evidently Arbor Day failed in Nebraska.

By the way, do you have any idea how much poetry has been written about trees? Ranks right up there with love poetry I think. To give you an idea, I can actually find poetry by species of tree. For example, listed below is some oak tree poetry. For the tree huggers, a poem by Walt. For those of you who have been dying because of all the oak pollen or those of you who have to rake oak leaves, which simply refuse to be raked, a poem with at best a tinge of grudging admiration from Edna.

Walt Whitman-*"I saw in Louisiana a Live Oak Growing"*

I saw in Louisiana a live-oak growing,
All alone it stood and the moss hung down from its
branches,
Without any companion it grew there uttering
joyous leaves of dark green,
And its look, rude, unbending, lusty, made me think
of myself,
But I wonder'd how it could utter joyous leaves
standing alone there without its friend near,
for I knew I could not,
And I broke off a twig with a certain number of
leaves upon it, and twined around it a little moss,
And brought it away, and I have placed it in sight in
my room,
It is not needed to remind me as of my own dear
friends,
(For I believe lately I think of little else than them,)
Yet it remains to me a curious token, it makes me
think of manly love;
For all that, and though the live-oak glistens there in
Louisiana solitary in a wide flat space,
Uttering joyous leaves all its life without a friend or
lover near,
I know very well I could not.

Edna St. Vincent Millay-*"The Oak Leaves"*

Yet in the end, defeated too, worn out and ready to
fall,
Hangs from the drowsy tree with cramped and
desperate stem
above the ditch the last leaf of all.
There is something to be learned, I guess, from
looking at the dead leaves under the living tree;
Something to be set to a lusty tune and learned
and sung, it well might be;
Something to be learned---though I was ever
a ten-o'clock scholar at this school---
Even perhaps by me.
But my heart goes out to the oak-leaves
that are the last to sigh
"Enough," and lose their hold;
They have boasted to the nudging frost
and to the two-and-thirty winds
that they would never die,
Never even grow old.
(These are those russet leaves that cling all winter,
even into the spring,
To the dormant bough,
in the wood knee-deep in the snow
the only coloured thing.)

