## CH301 Random Musings, November 4, 2008

- 0. Dealing with a few technical glitches first:
  - The Chem Portal Server was down last night for several hours. It went back up but, oops, I take that back, here is a message from BFW: "We are currently experiencing server issues for all Portals and CompClass products. We are working hard to correct this problem and expect it resolved quickly. Once the problem is corrected, I will send a notice. Thank you for your patience."
  - Sophomore registration for my course, which was supposed to begin at 4 yesterday, didn't start till 4:15 because the person lifting the bar didn't have the passwords to do so. If you tried to get in yesterday and couldn't, e-mail me and we will add you. Again sorry for the hassles. Remember that second sophomore registration is today at 4 and freshman registration is tomorrow at 4. If you can't get in during those assigned times, e-mail me and you will be placed at the top of the waiting list as continuing students in the class.
- 1. There is a major exam tomorrow night, Wednesday, October 7, from 7:30 till 9:00 pm.

Room locations are as follows:

- Last name: A G Jester A121A.
- Last name H R Welch 2.224,
- Last name S Z Welch 2.122

As always, the exam is worth 180 points, with 30 six-point multiple choice questions covering material in Chapters 3 through 5. Everything in my course notes from those chapters, as well as the worksheets and practice exams, is fair game. You should use the list of problem types (provided nearly three weeks ago and again today) as your guide for what I will cover. The review on Sunday night produced a question by question description of what I expect—you can find it under my lecture notes link.

2. At the end of the musings you will find specific information about exam procedures and policies. Read it carefully or you may do something unfortunate.

- 3. Things to think about in preparing for the exam:
  - First, this exam is more demanding than the last one so overconfidence based on prior performance is a dangerous game to play.
  - Don't think you have to know everything in Chapters 3 through 5—simply focus on how to do the kinds of question types that are listed and my notes which emphasize what is important.
  - Know that you know the material. Assume nothing. For example, I will ask you to assign a molecular geometry. If you can't say all the molecular geometries, by type, out loud, without assistance, you are going to miss the problem. It is really that simple.
  - Time will definitely be a factor on Wednesday for students who don't know the material cold.

- 4. Things to think about when you come take the test:
  - Showing up with a working calculator, pencils and picture ID.
  - Use proper hygiene on the day of the exam—many of you will think you don't have time to shower. Think again, the room will smell pretty ripe if you don't.
  - Don't assume your bus will be on time and that the traffic will be good and you know where the exam will be. Give yourself plenty of time so you are not panicked as you arrive.
  - Have a time management strategy in mind while you take the exam. You get three minutes per question and cannot afford to labor over the hard questions first—do them at the end only if you have time—all the questions are worth the same amount.

5. Grading and regrades: Grades will be posted as soon as possible on Thursday. Don't hassle us—if they are not up there is a good reason. Also, please don't e-mail after the exam to say your don't have a test score. Those of you with grading issues should download and return a regrade request form to Travis on Thursday afternoon.

6. Travis has agreed to do a review tonight from 7to 9 pm in Welch 1.308 That is very nice of him.

**7. Public Service Announcements. UTeach Outreach** Life outside the 40 Acres. Just because you are a student at UT doesn't mean there aren't meaningful academic and intellectual experiences to be had off campus. One example is UTeach Outreach, a service learning course that actually gives you a course grade for going to elementary school classrooms each week and teaching science to underserved students. It can be a remarkably rewarding experience. More information about how to register or learn more is provided below.

## **REGISTER NOW FOR SPRING 2009!!**



CH371K

University of Texas at Austin

Earn Chemistry Credit/ Elective Credit! Work With Kids! All Majors Welcome!



**CH207K** 

Create fun science lessons for kids with our help.

Plan and Practice in your UTeach class for 1 hour per week on campus.

**Travel** to teach elementary children in a local school.

**Enjoy** the delight you will see in your young students.

For more information attend <u>ONE</u> of the following mandatory 50 minute orientation sessions.

Tuesday, Jan.20<sup>th</sup> 1:00 or 2:00 or 3:00 in PAI 4.18 Wednesday, Jan 21<sup>st</sup> 9:00 or 10:00 or 1:00 in PAI 4.18 Thursday, Jan 22<sup>nd</sup> 2:00 or 3:00 in PAI 4.08 Friday, Jan 23<sup>rd</sup> 10:00 or 12:00 in PAI 4.18 Friday, Jan 23<sup>rd</sup> 11:00 in PAI 4.08 Monday, Jan 26<sup>th</sup> 11:00 or 12:00 in PAI 4.18 Tuesday, Jan 27<sup>th</sup> 1:00 or 3:00 in PAI 4.18 Wednesday, Jan 28<sup>th</sup> 9:00 in PAI 4.18

For more information contact: Mary Miller: Senior Coordinator of Outreach Initiatives E-Mail: <u>UTO@uts.cc.utexas.edu</u> or visit our website at <u>https://uteach.utexas.edu/go/uteachweb/Outreach-Initiatives</u>

## CH 301 Exam 2 Procedures: Format and Administration **Exam format:**

1. A major CH301 exam covering Chapters 3 through 5 will be administered Wednesday, November 5 from 7:30 until 9 pm. The exam will be worth 180 points. Exam questions will be generated using Quest which also generated your first two quizzes.

2. Test structure: The exam will consist of 30 questions with each question worth 6 points. Questions are in a multiple-choice format. A breakdown of the problem type is included with these musings.

3. In addition to the problems, you will be provided a scantron, a table of the elements, scratch paper and a list of useful equations(also found in these musings) and constants.

**Exam Administration:** READ THIS CAREFULLY. IF YOU DO NOT FOLLOW PROCEDURES, YOU MAY NOT BE ALLOWED TO TAKE THE EXAM. The supreme rule for my exams: everyone has the right to an optimum test-taking environment. I am less concerned with cheating than I am with you making life miserable for others taking the exam. All of the rules for this exam are constructed with this in mind.

1. Exam location: There are three locations based on last name. Last Name: A-G, Jester A121A. Last name H-R, Welch 2.224, Last name S-Z, Welch 2.122 If you go to the wrong room, you will not be allowed to take the exam.

2. Exam start time: 7:30 pm. No one is allowed into the room to take the exam after 7:45 pm.

3. What you may bring to your seat for the exam: number 2 pencils, calculator (I don't care what kind you bring but do not cheat), something to drink.

What you may **not** bring to your seat: anything else including coats, food, back packs, books, paper, MP3s, wireless devices like cell phones and PDAs. If you must bring them to class, place them at the bottom of the class room before the exams begins. You also are not allowed to bring devices that provide wireless connections to external sources.

4. During the exam, the TAs will be available to answer questions. Raise you hand and one of us will come to help you as best we can. Do not leave your seat unless you are finished and are leaving the room.

5. When you leave, do so quietly. AS YOU LEAVE YOU MUST SHOW YOUR UT IDENTIFICATION when you turn in your exam. Make sure your name, version number and ID are bubbled in.

6. Exam finish time 9:00 pm. You will be given fair warning that the exam is about to end so you can start guessing on questions you don't know. I WILL NOT TOLERATE ANYONE WRITING AFTER YOU ARE TOLD TO PUT DOWN YOUR PENCILS. Anyone who is observed to be writing on their exam after the exam ends will be assumed to be cheating and will receive a 0 for the exam and will face additional academic penalties. READ THIS AGAIN IF YOU DON'T UNDERSTAND. I WILL NOT TOLERATE ANYONE ANSWERING QUESTIONS AFTER THE EXAM STOPS AT 10:00 PM.

7. If all goes well the exam scores will posted by noon the next day on Quest—but do not harass us if the grades are delayed—we are getting them up as fast as we can

8. If you have any special considerations please contact me immediately by e-mail so we have documentation and can arrange for your needs. Evening testing makes it more difficult to provide alternate testing facilities and we need to plan for this. Anyone who wants them must e-mail me TONIGHT to verify that a testing location is available.

9. The make-up exam will be given on Sunday November 9<sup>th</sup> from 6 to 7:30 pm in Welch 2.224. Just show up and take it—I don't eed to be notified.

10. If you miss both the exam and make-up, remember that I allow the final exam score to substitute in its place. There will be no make-ups except under extraordinary circumstances.

8. Here is a repeat of the question types on the exam, the chapter form which the material originates, and the worksheet where you can find similar questions.

| number | chapter   | Worksheet   | Problem type                                   |
|--------|-----------|-------------|--|
| 1      | Chapter 3 | Worksheet 6 | Ranking bond polarity                          |
| 2      | Chapter 3 | Worksheet 6 | Assigning molecule polarity from VSEPR         |
| 3      | Chapter 3 | Worksheet 6 | Assigning molecule polarity from VSEPR         |
| 4      | Chapter 3 | Worksheet 6 | Bond angles from VSEPR                         |
| 5      | Chapter 3 | Worksheet 6 | VB theory of hybrid orbits                     |
| 6      | Chapter 3 | Worksheet 6 | Electronic geometry from VSEPR                 |
| 7      | Chapter 3 | Worksheet 6 | Molecular geometry from VSEPR                  |
| 8      | Chapter 3 | Worksheet 7 | Number of $\sigma$ and $\pi$ bonds in molecule |
| 9      | Chapter 3 | Worksheet 7 | AOs that comprise MOs in a bond                |
| 10     | Chapter 3 | Worksheet 7 | MO theory                                      |
| 11     | Chapter 3 | Worksheet 7 | Filling MOs of diatomic molecules              |
| 12     | Chapter 3 | Worksheet 7 | Calculating bond order from MO                 |
| 13     | Chapter 3 | Worksheet 7 | Assigning paramagnetism from MO                |
| 14     | Chapter 3 | Worksheet 7 | Ranking bond length from bond order            |
| 15     | Chapter 3 | Worksheet 6 | Identifying delocalization (resonance)         |
| 16     | Chapter 4 | Worksheet 8 | Ideal gas law history                          |
| 17     | Chapter 4 | Worksheet 8 | Gas law change of state calculation            |
| 18     | Chapter 4 | Worksheet 8 | Calculating MW, M or $\rho$ from PV = nRT      |
| 19     | Chapter 4 | Worksheet 8 | Reaction stoichiometry and $PV = nRT$          |
| 20     | Chapter 4 | Worksheet 8 | Calculation of relative ratio of gas speeds    |
| 21     | Chapter 4 | Worksheet 8 | Ranking non-ideality of gases                  |
| 22     | Chapter 4 | Worksheet 8 | Gas non-ideality theory                        |
| 23     | Chapter 5 | Worksheet 9 | IMF theory                                     |
| 24     | Chapter 5 | Worksheet 9 | Assigning IMF to molecules                     |
| 25     | Chapter 5 | Worksheet 9 | Assigning IMF to molecules                     |
| 26     | Chapter 5 | Worksheet 9 | Defining physical properties                   |
| 27     | Chapter 5 | Worksheet 9 | Ranking physical properties by IMF             |
| 28     | Chapter 5 | Worksheet 9 | Ranking physical properties by IMF             |
| 29     | Chapter 5 | Worksheet 9 | Ranking physical properties by IMF             |
| 30     | Chapter 5 | Worksheet 9 | Assigning type of solid to compounds           |

9. Poetry corner. There is no more appropriate song or poem for thermodynamics than Signs, a song from back in the day when there were hippies. Sadly, hippies are gone, replaced by people who stick things in their ears all day long instead of growing their hair and not bathing. By the way, the music that your now listen to, with those things you stick in your ears, can only hope to be as good as this song.

Signs Les Emmerson

Signs say long-haired freaky people need not apply. So, I tucked my hair up under my hat and I went in to ask him why. He said, "You look like a fine upstanding young man, I think you do." So I took off my hat and said, "Imagine that, me working for you." CHORUS: Signs, signs, everywhere there's signs Blockin' out the scenery, breakin' my mind. Do this, don't do that. Can't you read the signs.

Well the sign says, "Anybody caught trespassing will be shot on sight." So, I jumped on the fence and I yelled at the house, "Hey, what gives you the right To put up this fence to keep me out or to keep mother nature in. If God was here, he'd tell you to your face, "Man, you're some kind of sinner."

## CHORUS

"Hey now, mister, can't you read? You've got to have a shirt and tie to get a seat. You can't watch here, you can't eat. You ain't supposed to be here."

Sign says, "You got to have a membership card to get inside."

Sign says, "Everybody welcome. Come in, kneel down and pray." And when they passed around the plate at the end of it all, I didn't have a penny to pay. So, I got me a pen and a paper and I made up my own little sign. I said, "Thank you Lord for thinkin' 'bout me. I'm alive and doin' fine."