Instructor: René Fournier, Petrie 303, renef@yorku.ca, phone ext. 30687
Course web site: go to www.yorku.ca/renef and follow the CHEM 2011 link.

Teaching assistants:
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Required Text: Physical Chemistry (PC), Thomas Engel and Philip Reid (Pearson Prentice Hall) 2nd edition (2010); or the first half of PC, Thermodynamics 2nd edition (1st edition is OK too), Thomas Engel (Pearson, 2010).
Note: Chapters 1 to 11 of Physical Chemistry are identical to chapters 1 to 11 of Thermodynamics.

Lectures: Vari Hall C, Mon/Wed/Fri 9:30–10:20
Office hours: Petrie 303, Wednesday 10:30–12:30, or by appointment.

Information about York’s policies on academic honesty, students disabilities, religious observance, etc., is available at: http://www.yorku.ca/secretariat/policies

Topics covered: calculus (review), heat, work, energy, equilibrium, reversibility, enthalpy, state functions, thermochemistry, entropy, free energy, chemical potential, activities, effect of temperature and pressure on equilibria, phase equilibria, surface tension, solutions. This corresponds roughly to chapters 1 to 9 plus part of chapter 10.

Evaluation

Calculus test: 10% positive contribution
Two tests: 50% (25% each)
Final exam: 50% (or 75%, or 100%, whichever works to your advantage, see below)

The Calculus test will be held next week, Friday September 24! It will test only the basics of what’s covered in a standard 6-credit calculus course (MATH 1013/1014 or equivalent), and it will count toward your final grade only if your mark is better than the average of your marks in all other tests. In other words, what you will get on your calculus test can not lower your overall mark in the course, it can only increase it (positive contribution).

The two other tests will be 50 minutes long and worth 25 marks each. They will be held during class time on Friday October 22 and Friday November 19 (dates to be confirmed).

The final exam will consist of four parts worth 25 marks each: (1) the 1st part will cover the same things as test #1 (roughly the first 4 weeks of lecture material); (2) the 2nd part will cover
the same things as test #2 (roughly weeks 5, 6, 7 and 8); (3) the 3rd part will cover material seen in class after test #2 (roughly the last 4 weeks of lecture); (4) the 4th part will cover all of the material.

**The numerical grade in the course** will be calculated by adding four marks:

- your mark in test #1 or, if is better, your mark in the 1st part of the final, out of 25;
- your mark in test #2 or, if is better, your mark in the 2nd part of the final, out of 25;
- your mark in the 3rd part of the final exam, out of 25;
- your mark in the 4th part of the final exam, out of 25.

If this numerical grade is lower than what you got on your calculus test, I will replace 10% of your grade by your calculus test mark out of 10 (positive contribution).

If you miss a test, you will have zero on that test. I will not look at excuses or notes from doctors or others. If you miss all three tests, you get zero on all: it means that your final exam will be worth 100%. I strongly advise that you write all tests. This gives you two chances to show that you know the material — on the test, and in the final exam (part 1 or 2).

**Organization of the course**

Here’s what I expect from you and what I think you will have to do to get C or better in the course: (a) you attend lectures and tutorials regularly; (b) you participate during the lectures (by trying to solve in-class problems that I will assign); (c) you write all tests; (d) you spend roughly 2 hours studying and working on assigned problems for every lecture hour.

Here’s what I will try to do in class. I will: (a) focus on concepts and the most difficult things; (b) skip definitions, examples, and numerical problems, or go over them quickly; (c) break each lecture hour into 3 to 5 mini-lectures; (d) follow each mini-lecture by a question or problem for you, and let you work on it for a few minutes before moving on; (e) make sure that many (but not all) of the tests’ questions are nearly identical to the in-class questions.

I will not present anything that is not covered in the book, but of course I could explain things a bit differently or give different questions or examples.

You may want to take some notes during class. But your lecture notes can only supplement the book, they are no substitute for it.

I will not post my lecture notes on the Web. Here’s why. The book is more complete and accurate than any set of notes I could generate. Having a set of lecture notes from me could give you a false sense of security, or a wrong notion that classes are not important. I do not want to spend my time preparing web-ready figures — the blackboard is a lot easier to use and works just fine. I keep changing my lecture notes as I go along, and I can not afford the time to update my Web pages to ensure consistency with what I show in class. You do not have to copy my notes during lecture; actually I discourage you from doing that. My notes are excerpts from the book and I will give the book’s page numbers corresponding to each slide I show in class.

The *tutorials*, on Monday, will be to answer your questions and help you with the assigned problems.