Chemistry 104 -- General Chemistry (CRN 10597, 4 cr)
Portland State University, Fall, 2011

Instructor: Ms Julie Peyton, adjunct professor, Science Bldg I, room 532; phone # TBA. Please do your best to contact me in person, either in the classroom or during office hours. Imagine 130 students, all sending me e-mails or making phone calls…

Office hours: Fridays 10:30-11:20. Also after class as needed.

Class times: MWF 9:00 - 10:05 a.m. Location: Shattuck Hall, room 212

Required texts: Frost, Deal, and Timberlake, General, Organic, and Biological Chemistry: An Integrated Approach, Prentice Hall. 2011 [sic]. You have TWO OPTIONS: the full-year hardback text (containing chapters 1-12) or, if you plan to take just CH104, you may want the purchase Vol I, softcover, with chapters 1-4.

[NB: CH 107, for which you should be enrolled concurrently with this course, requires a lab manual; check the bookstore. Go to lab this week.]

Course Description: A survey of chemistry for students in nursing, allied health fields such as dental hygiene, forestry, and the liberal arts, this course is not intended for science or engineering majors. Ch 104, 105, and 106 must be taken in sequence. CH 104 requires concurrent enrollment in the lab course, CH 107. Also please note that the laboratory for this class is SEPARATE from the lecture portion: different CRN, different instructor. You must register for the lab (i.e., don’t assume that because you’ve registered for 104 that you are automatically enrolled in 107).

Prerequisite: Two years of high school algebra or Mth 95. Math skills tend to be the limiting factor for how well you do in chemistry; if your math skills are weak and you want/need to do well in this class, I strongly recommend that you postpone taking CH104 until you are sure you can handle the math comfortably.

Desire2Learn: This course will be supported by d2l, where you will be able to read/download course materials, see your grades, participate in on-line discussions, and generally enjoy all that this wonderful program has to offer. Before you can begin, you'll need an ODIN account. The fine Tech Wizards at Smith Center basement can help you out.

Attendance: Attendance will not count in the final grade, but you are responsible for information (corrections, changes in dates, assignments) given during class time. Get that information either from d2l or from a classmate. Do not expect to get it from me (i.e., do not e-mail me or call me or otherwise ask me what you missed.) I recommend that you make friends with your classmates, so you can swap such information quickly and efficiently.

Homework. I am experimenting this year with an on-line homework approach. Last year’s students were the guinea pigs, and they rather liked it. There will be a separate handout on this.

Grading: There will be four exams (50 points each, emphasizing the material in the recently completed chapter, but open to earlier material). The PLAN is to have the dates correspond to completing a chapter, but that might not be exact. On the next page is a schedule; the DATES of the exams are firm, but if we haven’t finished a chapter the exam will still be given and the content of the exam will reflect the material covered by that point), a final (150 points, comprehensive, scantron 882E), and multiple (number TBD) homework assignments (at most weekly, more likely every 10 days or so) 20 pts each, keeping the highest 5.

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<tbody>
<tr>
<td>Exams</td>
<td>200 pts</td>
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<tr>
<td>Homework</td>
<td>100</td>
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| Final (bring scantron, 882E) | 150 pts | (Tues, 12/7/2008, 8-9:50 a.m.)

Total = 450 pts
Grades will be assigned by the **higher of these two options:** (1) by percentage of total (450) points, (2) the percentage of your final exam (150 pts).

- 94% and above is an A
- 90-93% is an A-
- 88-89% is a B+
- 84-87% is a B
- 80-83% is a B-
  
I do not grade “on a curve.” I do “round up”: e.g., anything **above** 93.0 % = 94%

**Making up late/missed exams:** Missed exams can be made up by using the Testing Center (testing.pdx.edu), which charges a fee.

**ADA requirements:** If you have a disability and need an accommodation, please make arrangements to meet with me outside of class so we can plan ahead. PSU students requesting accommodations must provide documentation of disability and work with Disability Resource Center (4th floor of Smith Center, or it used to be …).

**Cheating:** Unfortunately temptations and opportunities exist for cheating. If you are caught cheating or abetting this behavior, you will receive a "0" for that assignment, and you will also experience the drop, by one full letter, of your final grade. If I catch you twice, or if your cheating is egregious enough (by my evaluation), you'll be given an "F" for the course, and referred to the Student Affairs office. This could result in your expulsion from all PSU classes, and you may be blocked from registering at PSU in the future. So don't do it.

**Withdrawals:** Should this option become necessary, it is your responsibility to withdraw officially via the internet or the Registrar's Office. Check the PSU bulletin for details of policies and procedures.

**Tentative Chemistry 104 schedule (Chapters 1-4)**

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<tr>
<th>Wk #</th>
<th>Chapter and Lecture Topics</th>
<th>Comments</th>
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<tbody>
<tr>
<td>1-3</td>
<td>Ch 1 Chemistry: It's All About “stuff.”</td>
<td>9 lectures to cover roughly 30 pages. Expect lots of work on basic algebra to solve simple problems. The basics; what is/isn't science; units &amp; metric prefixes.</td>
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<td>4-5</td>
<td>Ch 2 Atoms and Radioactivity</td>
<td>I may add some more historical that starts with the first modern theory of the atom (Dalton’s model, early 1800's) and ends with the “modern” (quantum mechanical) view. It’s a great story, worth hearing. Counting vs weighing. Radioisotopes, medical applications. Models = theories.</td>
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<td>6-7</td>
<td>Ch 3 Compounds: Putting Particles Together.</td>
<td>Molecular vs ionic compounds. Theories of bonding (remember we can’t SEE these particles, so we infer what they look like from their behavior. Covalent bonds &amp; molecules vs. ionic bonds and “formula units.” Molecules have shapes, and ionic compounds have lattice structures. Nomenclature, the systematic naming of chemicals.</td>
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<tr>
<td>8-10</td>
<td>Ch 4: Intro to Organic Chem.</td>
<td>“O chem.” requires knowledge about classes of organic compounds, including naming organic molecules following systematic nomenclature rules. This requires scads of memorizing, so get ready and don’t fall behind.</td>
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<td>11</td>
<td>Final is <strong>TUE, 8 a.m.- 9:50 a.m.</strong></td>
<td>Note that this is NOT our usual day of the week or time.</td>
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**Holidays are November 11 (Veterans Day), 24-25 (Thanksgiving)**
The calendar may be changed in response to institutional, weather, or class problems.

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The small print: the instructor reserves the right to change the provisions of this syllabus at any time, if she feels it will benefit the class.