Chemistry 104 -- General Chemistry (CRN 10584, 4 cr)
Portland State University, Fall, 2013

Instructor: Ms Julie Peyton, adjunct professor, SRTC, room 306. Please do your best to contact me in person, either in the classroom or during office hours. If you need to send an email, use d2l (see below) rather than the campus email (which I don't use).

Office hours: Mondays 10:30-11:20. Also after class as needed. E-mail me via d2l (see below).

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. 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 expects concurrent enrollment in the lab course, CH 107, which is SEPARATE from the lecture portion: different CRN, different instructor.

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. I strongly recommend that you postpone taking CH104 until you are sure you can handle the math comfortably.

Desire2Learn (d2l): 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, etc.

Attendance: You are responsible for all information (corrections, changes in dates, assignments) given during class time. If you miss a class, it is your responsibility to find out what you missed, thus I recommend that you make friends with your classmates, so you can swap such information quickly and efficiently. I do not reply to emails asking me for that information.

Homework. Your assignments will be available through Sapling Learning. Go to their website, register, follow their instructions. We'll discuss this in class. (www.saplinglearning.com).

Grading: There will be four exams, one for each chapter (50 points each, emphasizing the material in the recently completed chapter, but open to earlier material), a final (150 points, comprehensive, Scantron 882E), and multiple homework sets (20 pts each, keeping the best 5).

Exams (not Scantron) 200 pts
Homework (online) 100 (best 5 of however many we have)
Final (bring scantron, 882E) 150 pts (Tues, 12/4/2012, 8-9:50 a.m.)
Total = 450 pts

Grades will be assigned based on the better of these two options: (1) total points available (450), or (2) just your 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- and so forth. 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. See d2l for details.

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, I will report you to the Student Affairs Office then (1) you will receive a "0" for that assignment, and (2) you will experience the drop, by one full letter, of
your course 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. 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:** It is your responsibility to withdraw officially. Check the PSU bulletin for details of
policies and procedures.

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

<table>
<thead>
<tr>
<th>Wk #</th>
<th>Chapter and Lecture Topics</th>
<th>Comments</th>
<th>Food-related activities</th>
</tr>
</thead>
<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. How to quantify anything.</td>
<td>Eggs: Separate yolk from white; float an egg; liquid white to solid white.</td>
</tr>
<tr>
<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>
<td>Chemistry can tell how much of your body came from corn.</td>
</tr>
<tr>
<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. <em>Nomenclature</em>, the systematic naming of chemicals.</td>
<td>Guest lecturer on the wonders of salt; what a lattice of ions tastes like. How water is unique.</td>
</tr>
<tr>
<td>8-10</td>
<td>Ch 4: Intro to Organic Chem.</td>
<td>“O chem.” requires knowledge about classes of organic compounds, including <em>naming organic molecules</em> following systematic nomenclature rules. This requires scads of memorizing, so get ready and don’t fall behind.</td>
<td>The difference between paraffin, beeswax, earwax, fats, oils, etc. Olive oil taste test?</td>
</tr>
<tr>
<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>
<td>12/10/2013</td>
</tr>
</tbody>
</table>

Chapter quizzes will occur when we finish the chapter. No set dates yet, but I’ll post them on the d2l calendar as soon as said dates become obvious.

**Holidays are November 11 (Veterans Day), November 28-29 (Thanksgiving)**
The calendar may be changed in response to institutional, weather, or class problems.

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.