CHEMISTRY 112 Fall 2008
Dr. Ronald Ruszczyk Office SCI 309
Office Phone 641-3420 Office Hours
E-mail ronr@usca.edu Tu, Th 9:30-11:00

Lecture/Laboratory: MWF 9:00 - 10:50 AM Rooms 200, 315
TEXT: Chemistry (Molecular Nature of Matter and Change) by Silberberg -
4th Edition (You will need your Online Homework Code.)
LAB MANUAL: by USCA Chemistry Faculty
LABORATORY NOTEBOOK
ACS Guide for General Chemistry Exam
SCIENTIFIC CALCULATOR: Must be able to do square root, logs, and
scientific notation (bring to each lecture)

GRADING: 13 Tests 40-45 pts each 550 pts
1 Final Exam 200 pts 200 pts
1 Paper 40 pts 40 pts
16 Labs 15 pts each 240 pts
Homeworks 40 pts 40 pts
--------- 1070 pts total

Letter Grades:
900+ pts A 800+ pts B
700+ pts C 600+ pts D

Attendance Policy: Students are allowed a maximum of seven absences of
which no more than four may be unexcused. Missed assignments including
tests due to excused absences may be made up at the discretion of the
instructor. More than 4 unexcused or 7 total absences will result in
the loss of one letter grade from the final grade calculated based on
percentage of total points earned.

Tests will be Fridays at the beginning of the class period, and
will cover the material discussed in recent lectures and labs.
Approximately 50 minutes will be allowed for the test. Do not arrive
late. There will be some overlap in the tests since material previously
discussed will be used for subsequent topics.

Online homework will be assigned, and will be due each Thursday by
7:00 PM. To access the online homework you will need to sign up in
WebAssign. Go to www.webassign.net and click on Log In at the left.
Click on I Have A Class Key. In the three boxes type usca 5617 3037.
Follow the instructions to enter your name into the roster. You will
also need the access code you used for WebAssign in Chemistry 111. If
you lost it, you can purchase a new one for the semester.

If you have any physical, psychological, and/or learning
disability which might affect your performance in this class, please
contact the Office of Disability Services, 126A B&E, (803) 641-3609, as
soon as possible. The Disability Services Office will determine
appropriate accommodations based on medical documentation.

All portable electronic devices (cell phones, iPods, MP3 players,
etc.) are to be turned off during class. Only calculators can be used
during exams.

The Term Paper is due by October 17, 2008. Each student will write a paper on a Plastic (#1 - #6). The paper should be 700 to 750 words (no shorter or longer, points will be deducted if it is too short or long), typewritten double-spaced. Included in the paper should be: Name and Abbreviation for the polymer plastic; Name, Formula, and Structure of the monomer; How it is made, and Cost of production; Properties (density, melting point, burns?, etc.); What it is used in; How it is disposed of, and Environmental concerns; How it can be recycled and Cost of recycling.

In addition, you should include a reference page listing the source name, article title, page number, article date and author, for all source material used in your synopsis. If you quote any source word for word be sure to credit the source with a footnote or reference. (Quotes do not count toward the 700 word requirement, and points will be deducted for too many quotes.) Include your own thoughts or opinion about the topic discussed in the article.

The paper should be double spaced, 10 or 12 point font (Courier or Times New Roman), with 1 inch margins all around. Sentence structure, grammar, punctuation and spelling will also be used as a basis for grading your paper. Be sure it is worthy of being read with respect to these aspects.

All graded materials are subject to the USCA HONOR CODE, which will be strictly enforced. The HONOR CODE and penalties for its violation are described in detail in your USCA Student Handbook and you should be thoroughly familiar with this information for your own protection. In addition to a hard copy, an electronic copy in Word is to be submitted.

A pre-lab write-up is to be turned in on the class day preceding the scheduled day for each lab. This should include the objective of the lab, a summary of the experimental procedure and the calculations to be done, and a data table template (similar to those in the 111 section of the lab manual). The data table should be comprehensive; include columns for any and all data that may be needed for calculations. Note that some weeks have two labs scheduled.

**TENTATIVE SCHEDULE**

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Test</th>
<th>Lab</th>
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<tbody>
<tr>
<td>Aug 22</td>
<td>Chapter 23</td>
<td></td>
<td>Test 1</td>
</tr>
<tr>
<td>Aug 25</td>
<td>Chapter 23</td>
<td></td>
<td></td>
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<tr>
<td>Aug 27</td>
<td>Chapter 17</td>
<td></td>
<td>(69) Beer’s Law</td>
</tr>
<tr>
<td>Aug 29</td>
<td>Chapter 17</td>
<td>Test 1</td>
<td></td>
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<tr>
<td>Sep 1</td>
<td>No Class</td>
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<tr>
<td>Sep 3</td>
<td>Chapter 17</td>
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<tr>
<td>Sep 5</td>
<td>Chapter 17</td>
<td>Test 2</td>
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<tr>
<td>Sep 8</td>
<td>Chapter 18</td>
<td></td>
<td>(77) Equilibrium Constant</td>
</tr>
<tr>
<td>Sep 10</td>
<td>Chapter 18</td>
<td></td>
<td></td>
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<tr>
<td>Sep 12</td>
<td>Chapter 18</td>
<td>Test 3</td>
<td></td>
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</tbody>
</table>
Sep 15  Chapter 18
Sep 17  Chapter 18
Sep 19  Chapter 19  Test 4
Sep 22  Chapter 19
Sep 24  Chapter 19
Sep 26  Chapter 19  Test 5
Sep 29  Chapter 19
Oct  1  Chapter 20
Oct  3  Chapter 20  Test 6
Oct  6  Chapter 20
Oct  8  Chapter 20
Oct 10 No Class
Oct 13 Chapter 20
Oct 15 Chapter 21
Oct 17 Chapter 21  Test 7
Oct 20 Chapter 21
Oct 22 Chapter 21
Oct 24 Chapter 21  Test 8
Oct 27 Chapter 16
Oct 29 Chapter 16
Oct 31 Chapter 16  Test 9
Nov  3 Chapter 16
Nov  5 Chapter 16
Nov  7 Chapter 24  Test 10
Nov 10 Chapter 24
Nov 12 Chapter 24
Nov 14 Chapter 15  Test 11
Nov 17 Chapter 15
Nov 19 Chapter 15
Nov 21 Chapter 15  Test 12
Nov 24 Chapter 15
Nov 26 No Class
Nov 28 No Class
Dec  1 Chapter 23
Dec  3 Chapter 23
Dec  5 Review  Test 13
Dec 10 Final Exam 8:00 AM
(75) LeChatlier’s Principle
and (80) pH of Common Materials
(81) pH of Weak Acids/Bases
(83) Acidic Salts
(84) Buffers
(86) Weak Acid Titration
(88) Ksp of Mg(OH)₂
and (90) Precip, Solubility
(91) Entropy
(93) Reduction Potentials
and Electrolysis Demo
(72) Kinetics
(96) Hybridization
(97) Organic Lab