Chemistry 161, 3 units, CRN 70535  
MWF, Bil 152, 2:30 pm to 3:20 pm  

INSTRUCTOR: Chris Nold (cpnold@hawaii.edu)  
OFFICE: Bil 247B, email is the best way to contact me.  
OFFICE HOURS: Wed after class 3:30 pm to 4:30 pm, also by appointment  
EFFECTIVE DATE: August 26, 2013

CATALOG DESCRIPTION

CHEM 161 General Chemistry I (3) Basic principles of chemistry, including stoichiometry. Introduction to solution phase chemistry. Gas phase chemistry. Thermodynamics, including enthalpies of formation and reaction. Atomic structure, periodic trends, chemical bonding, molecular structure. Pre: C (not C-) in 131 or C (not C-) in 151 or successful completion of placement exam, or consent. DP

STUDENT LEARNING OUTCOMES
The student learning outcomes for the course are:

- Use the mole concept in solving stoichiometry problems involving solids, liquids, gases and solutions.
- Balance chemical equations, classify reactions, identify and analyze the role of the chemicals involved in chemical reactions.
- Predict the behavior of gases while undergoing changes in volume, pressure, temperature and quantity.
- Manipulate thermochemical equations and calculate the amount of energy involved in chemical reactions.
- Predict physical and chemical properties of elements based on electronic structure and location in the Periodic Table.
- Predict physical and chemical properties of compounds based on chemical bonding, geometry and intermolecular interactions.
- Important dates: September 3, last day to drop without a “W” grade, or to switch classes  
  * October 25, last day to withdrawal with a “W”

COURSE TASKS
-participate in class, homework, exams, final exam

GRADING
Each exam = 15%*  
On-line homework = 10%  
Final = 30%*  

Final Exam date: Monday Dec. 16th 2:15 pm to 4:15 pm  

1.) Exams cover typically will cover 2-3 chapters and material covered in class  
2.) The final exam is 2 hours and is cumulative.  
*Curve will be applied if deemed necessary.  

IMPORTANT: A grade of “C” will be required to move from CHEM 161 to CHEM 162.

STUDYING FOR THIS COURSE
Your personal studying skills and habits are crucial to success in the class. You should be spending between 5 and 15 hours a week studying outside of the class.  
1. Use the lecture notes in class (will be posted on Laulima bring them everyday)  
2. Bring a calculator everyday to class (especially for exams)  
3. Please ask questions if you do not understand something  
4. Review your notes after class and do the homework assignments  
5. Do the “self-tests” or practice exams available on-line  
6. You will need to bring a #2 pencil and Student ID / Picture ID to the exams

LEARNING RESOURCES
-Mastering chemistry on-line homework, bought in package at bookstore or separately on line  
-Internet access  
-Tutorial Room: In addition to my announced office hours, Bilger Addition 209 will be available as a study/tutorial room (http://manoa.hawaii.edu/chem/index.php?id=27). This room will be staffed by graduate teaching assistants (TAs). Please check the posted schedule for the room number and the times when tutors will be available. If the TAs cannot answer your questions, please email me their names, and we will take care of this situation.
OTHER POLICIES

1. Topics and exam schedule are listed below
2. It is expected that you have the math requirements need for this course. To review any concepts (algebra, exponential notation, significant figures, proportionality, percentages, logarithms, etc) go to the Math appendix in the textbook.
3. For missed exams these require medical note, police report, obituary notice and you must notify me that day or before, and not afterwards.
4. No make-up exams to obtain a better grade will be allowed
5. Disruptive behavior is not only rude to the instructor but the rest of the class. The instructor reserves the right to remove the student. This includes excessive and rude comments, cell phones, beepers, sleeping, eating and drinking in class, etc.
6. Cheating will result in an “F” for the class so please don’t do it. Students must follow the Student Conduct Code; students violating this code will be expelled from this class and awarded a grade ‘F’ (http://studentaffairs.manoa.hawaii.edu/policies/conduct_code/).
7. Changes in schedule that are announced in class will be a week prior to the event. You are responsible for these whether present in class or not (ask/email me, another student, etc).
8. MATH/SCIENCE DEPARTMENT POLICY ON WITHDRAWALS (W GRADES) AND INCOMPLETE (I GRADE): WITHDRAWALS (W GRADES) – After the “last day of withdrawals” OCTOBER 25, 2013, the instructor will sign withdrawals only in cases of extreme or unusual circumstances. Grade related excuses are unacceptable. Examples of extreme or unusual circumstances are: 1, A certified medical reason, 2, A death in the immediate family. Students who no longer attend class and who DO NOT OFFICIALY WITHDRAW from the course will receive “F” grades.
9. INCOMPLETE (I GRADE) – Students must present the “Request for Incomplete” form prior to the last day of instruction. “I” grades will be given only to students who are achieving passing grades and are very close to completing the course. In addition, the student must have a very good reason for not being able to complete all the work on time. Examples of good reasons are the same as those listed under the withdrawal policy above.

Accommodations:
The University of Hawaii is an equal opportunity/affirmative action institution, dedicated to teaching all students and reaching all learners. It is our commitment to make our lectures and classrooms accessible to all students. If you have, or think you might have, a disability and have not voluntarily disclosed its nature and the support you need, you are invited to contact the UH KOKUA Program (http://www.hawaii.edu/kokua/ or (808) 956-7511), or talk with the instructor in order to get any accommodation you might need to take the course. This information will be kept confidential. Please do this as early in the course as possible.
## SCHEDULE OF COURSE

### Chemistry 161 Tentative Schedule
General Chemistry I
Fall 2013

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPIC(S)</th>
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<tbody>
<tr>
<td>Aug 26 – Sept 1</td>
<td>Chapter 1, Chapter 2</td>
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<tr>
<td>Sept 2 – 8 (Holiday September 2)</td>
<td>Chapter 2 (cont.), Chapter 3</td>
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<tr>
<td>Sept 9 – 15</td>
<td>Chapter 3 (cont.)</td>
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<td>EXAM #1, Friday, SEPT 13 (CHAPTERS 1-3)</td>
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<tr>
<td>Sept 16 – 22</td>
<td>Chapter 4</td>
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<td>Sept 23 – 29</td>
<td>Chapter 4 (cont.), Chapter 5</td>
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<tr>
<td>Sept 30 – Oct 6</td>
<td>Chapter 5</td>
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<td>EXAM #2, Friday, OCT 4 (CHAPTERS 4-5)</td>
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<td>Oct 7 – 13</td>
<td>Chapter 6</td>
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<tr>
<td>Oct 14 – 20</td>
<td>Chapter 6 (cont.), Chapter 7</td>
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<td>Oct 21 – 27</td>
<td>Chapter 7</td>
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<td>EXAM #3, Friday, OCT 25 (CHAPTERS 6-7)</td>
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<tr>
<td>Oct 28 – Nov 3</td>
<td>Chapter 8</td>
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<td>Nov 4 – Nov 10</td>
<td>Chapter 8 (cont.), Chapter 9</td>
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<tr>
<td>Nov 11 – 17 (Holiday November 11)</td>
<td>Chapter 9</td>
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<tr>
<td>Nov 18 – 24</td>
<td>Chapter 9 (cont.), Chapter 10</td>
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<tr>
<td>Nov 25 – Dec 1 (Holiday November 28/29)</td>
<td>EXAM #4, Wednesday, NOV 27 (CHAPTERS 8-9)</td>
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<td>Dec 2 - 8</td>
<td>Chapter 10 (cont.), Chapter 11</td>
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<tr>
<td>Dec 9 – 12</td>
<td>Chapter 11</td>
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THE FINAL EXAM COVERS CHAPTERS 1 – 11 AND TAKES PLACE ON

**Monday, DECEMBER 16, 2:15 pm - 4:15 pm, BILGER 152**