General Chemistry I: Chem 105-001  
Spring Semester 2004

Class Schedule:

Lecture Meeting Times: MWF 10:00-10:50 am  
Location: S-22

Staff:

Professor: Stephen F. Wolf  
Office: Science Building, Room 051B  
Office Phone: (812) 237-2236  
Office Hours: MWF 11-12 or by appointment  
Email: wolf@indstate.edu

Course Description:

Chemistry 105 is the first semester of a two-semester general chemistry sequence. The second semester course is Chemistry 106 and most students who take Chemistry 105 should plan to enroll in Chemistry 106 after their successful completion of this course. Topics covered in Chemistry 105 include fundamentals of scientific calculations, atomic theory, stoichiometry, chemical reactions, physical properties of gasses, thermochemistry, atomic structure and periodicity, and molecular bonding and geometry.

Prerequisites:

- Prior completion of the Basic Studies General Education mathematics requirement
- Enrollment in Chem 105L

This course assumes that you have a functional knowledge of algebra. Students having a weak background in algebra usually perform poorly in this course. If your math background is weak, we strongly recommend (but do not require) that you postpone taking Chemistry 105 until you have successfully completed an ISU math course numbered 111 or above.

Course Credit: 3 hours

Course Material and Equipment:

- Calculator: You will need a calculator with the capacity for square roots, logarithms (log and ln), exponentiation, and exponential notation (e^x, 10^x, y^x) for quizzes and exams.

Course Information Sources:

- Lectures
- Text
- Online Electronic Homework Software
• Additional Practice Problems: Additional problems from the textbook will be assigned periodically. While these problems will not be collected they will offer an excellent method for preparing for quizzes and exams.
• Additional Handouts
• Class Bulletin Board: outside Room 051B
• Class Web Page: http://carbon.indstate.edu/chem/spring04/105/chem105.html

Sources of Credit:

Your performance will be evaluated by scores received on Online Electronic Homework, Quizzes, Exams, and a comprehensive Final Exam as described below. You are responsible for completing all of the assigned work.

Online Electronic Homework (EHW): Units will be assigned from the online software ChemSkill Builder. Students are responsible for working and comprehending the assigned units by the due date. Sections can be repeated in an attempt to earn a higher score. Homework will be accepted up to one-week late for partial credit. Additional information about ChemSkill Builder can be found on the course web page.

Quizzes: Four quizzes will be given in this class (typically on selected Fridays). Make-up quizzes will be given only when prearranged or under extenuating circumstances.

Exams: Five exams will be given in this class: four exams will be given during the regular semester and a fifth comprehensive exam will be given during finals week. Make-up exams will be given only when prearranged or under extenuating circumstances. The dates for these exams are Monday, February 2; Monday, February 23; Monday, March 29; Friday, April 23; and Monday, May 3.

Point Credit Breakdown:

<table>
<thead>
<tr>
<th>Source</th>
<th>Points</th>
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<tbody>
<tr>
<td>Homework</td>
<td>100pts</td>
</tr>
<tr>
<td>Quizzes</td>
<td>100pts</td>
</tr>
<tr>
<td>Exam 1</td>
<td>100pts</td>
</tr>
<tr>
<td>Exam 2</td>
<td>100pts</td>
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<tr>
<td>Exam 3</td>
<td>100pts</td>
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<tr>
<td>Exam 4</td>
<td>100pts</td>
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<tr>
<td>Final Exam</td>
<td>200pts</td>
</tr>
<tr>
<td>Total</td>
<td>800pts</td>
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Grading:

Your final letter grade will be based on the total percentage of points obtained from the above sources of credit. The tentative scale is:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total Score</th>
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<tbody>
<tr>
<td>A</td>
<td>Score &gt; 90%</td>
</tr>
<tr>
<td>B</td>
<td>75% ≤ Score &lt; 90%</td>
</tr>
<tr>
<td>C</td>
<td>60% ≤ Score &lt; 75%</td>
</tr>
<tr>
<td>D</td>
<td>50% ≤ Score &lt; 60%</td>
</tr>
<tr>
<td>F</td>
<td>Score &lt; 50%</td>
</tr>
</tbody>
</table>

This scale will be modified at the end of the semester on a 95% percentile basis. The grade breakdown listed above represents therefore, upper-limits for the final grade breakdown.
Attendance:

Students are expected to attend class. The consequences of missing a class include missing quizzes, exams, as well as assignments, and information that will assist in your successful completion of this class.

Success in Chemistry 105:

Success in Chemistry 105 will require a significant effort. There is a substantial amount of material that you will need to master so that you can continue on to Chemistry 106. Depending on how much Chemistry you have previously taken, you may need to spend as much as 2 hours of work for every 1 hour of lecture. There are several steps that you can take to help insure your successful completion of Chemistry 105.

Attend the lectures
- Read the assigned text prior to each lecture
- Take your own notes during lecture
- Review and study the text and your notes after each lecture
- Work the example problems given in the text
- Work the additional practice problems assigned in class
- Ask questions

Work the assigned EHW by the due date
- Read the introductory material and examples given in each unit
- Work all of the assigned exercises
- Repeat the unit to ensure you understand the material. Units may be repeated to increase your score
- Carefully read all of the helpful comments that the EHW gives you as you work the assigned exercises
- Use your text and your class notes to help you as you work the assigned exercises
- Take notes on the types of problems assigned in the EHW

If you follow these steps, you will be doing exactly what you need to do to prepare for Quizzes and Exams. Remember, the Quizzes and Exams count for nearly 90% of your grade! Finally,

Attend the Quizzes and Exams
- There are no makeup Quizzes and Exams except when prearranged or under extenuating circumstances, so mark your calendar!
- After Quizzes and Exams have been graded and returned, make sure that you understand how to answer all of the questions on the Quiz or Exam. Questions on Quizzes will very likely appear again on the next Exam. Questions on Exams will very likely appear again on the Final Exam.

Additional Assistance
- Attend the scheduled Supplemental Instruction Help-Sessions
- Individual and group tutoring services for Chemistry 105 are available free of charge from the Student Academic Services Center (237-2300) in Gillum Hall (M-F 8:00 am – 4:30 pm).

If you have any questions, please do not hesitate to ask me before, during, or after lectures. Please feel free to stop by my office during office hours or schedule an appointment if you prefer.