Midland College
Syllabus
2008-09
CHEM 1411
General Inorganic Chemistry I
4 Semester Credit Hours
(3 Lecture/4 Lab)

Course Description: This course will enable students to become proficient in stoichiometry, chemical equations, atomic structure, chemical bonding, reactions, gas laws, liquids and solids, and solutions. A knowledge of algebra is needed.

Text and Materials:
3. A scientific calculator is needed for this course.

Course Goals/Objectives: After successful completion of this course, a student will be able to answer descriptive questions and to work word problems like those assigned in the text.

Class Policies: If you decide to not complete this class, then it is your responsibility to go to the Office of Student Services to initiate the dropping of this class. If this class is not dropped, then a letter grade will be assigned.

If for some reason you must miss a test, please contact the instructor and be ready to take the makeup on the day you return to class or sooner. After one week from the original test date, a “zero” will be assigned to any test not completed and grades will be averaged accordingly.

Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the MC Student Handbook on this subject.

Evaluation of Students:

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Tests</td>
<td>65%</td>
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<tr>
<td>Homework</td>
<td>10%</td>
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<tr>
<td>Lab Grade</td>
<td>25%</td>
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Guaranteed Grades:

A....90%  B....80%  C....70%  D....60%

Course Schedule:
1. Keys to the Study of Chemistry
2. The Components of Matter
3. Stoichiometry of Formulas and Equations
4. Three Major Classes of Chemical Reactions
5. Gases and the Kinetic-Molecular Theory
6. Thermochemistry: Energy Flow and Chemical Change
7. Quantum Theory and Atomic Structure
8. Electron Configuration and Chemical Periodicity
9. Models of Chemical Bonding
10. The Shapes of Molecules
11. Theories of Covalent Bonding
12. Intermolecular Forces, Liquids, Solids and Phase Changes

Intellectual Competencies:

1. Reading - Understanding the material incorporated in the text used in this course will require the student to analyze and interpret various chemical concepts.

2. Listening - The primary teaching methods used in this course are discussion and lecture. Understanding the oral presentation of material will require the student to analyze and interpret various chemical concepts.

3. Critical Thinking - Critical thinking, as exemplified by problem solving, is inherent in the study of any scientific discipline. Chemical problems will be considered, discussed, and analyzed in this course.

ADA Statement:

Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact the instructor as soon as possible. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations.

Exemplary Objectives:

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<th>Competency</th>
<th>Course Number</th>
<th>Course Title</th>
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<td>X</td>
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<td>CHEM 1411 General Inorganic Chemistry I</td>
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Competencies:

1. To understand and apply method and appropriate technology to the study of the natural sciences.

2. To recognize scientific and quantitative methods and the differences between these approaches and the other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.

3. To identify and recognize the differences among competing scientific theories.
4. demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.

5. To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

Instructor Information:

Name:

Office:

Phone:

E-Mail:

Office Hours:

Division Dean: Dr. Margaret Wade, 125 SF, 685-4615

Division Secretary: Ms. Norma Duran, 124 SF, 685-4612
    Ms. Brenda Smith, 124 SF, 685-6413