I. College of Science and Mathematics
   Department of Chemistry

II. Course Information
   Course Title: General Chemistry I
   Course Abbreviation and Number: CHM 1210
   Course Credit Hours: 3
   Course Cross Listing(s) Abbreviation and Number:
   Check (“x”) all applicable:
   General Education Course____ X____ Writing Intensive Course_____ Service Learning
   Course____
   Laboratory Course____ Ohio TAG (Transfer Assurance Guide) Course ____
   Ohio Transfer Module Course____ X____ Others (specify)____

III. Course Registration
   Prerequisites: High School Chemistry or CHM 1010
   Undergraduate level MTH 1260 (minimum grade of D) or WSU Math Placement 04.
   Corequisites: CHM1210L
   Restrictions: CHM1210L
   Other:

IV. Student Learning Outcomes

Students must be proficient in all of the following core competencies:
1. Significant figures
2. Fundamental structures of atoms and molecules: introduction to quantum mechanics, atomic orbitals
3. Principles of ionic, covalent and metallic bonding; including Lewis structures, valence bond and molecular orbital theories of bonding
4. Mole concept, stoichiometry, and the laws of composition
5. Acids and bases, oxidation-reduction chemistry, and solutions
6. Thermochemistry
7. Classification of elements, including periodicity
8. Students should have been exposed to a variety of applications of chemistry in society
9. Students must have developed sufficiently strong analytical and interpretative skills to effectively apply algebraic methods to solve problems

CHM 1210 is a Natural Science course for the Core Element program. Learning outcomes are:
- Understand the nature of scientific inquiry
- Critically apply knowledge of scientific theory and methods of inquiry to evaluate information from a variety of sources
- Distinguish between science and technology and recognize their roles in society
• Demonstrate an awareness of theoretical, practical, creative and cultural dimensions of scientific inquiry
• Discuss fundamental theories underlying modern science

V. Suggested Course Materials

VI. Suggested Method of Instruction
Lecture

VII. Suggested Evaluation and Policy
Tests, Quizzes, Homework- number of exams/quizzes/homework and policies may vary with instructor

VIII. Suggested Grading Policy
A (≥90%), B(≥80%), C(≥70%), D(≥60%) – may vary with instructor

IX. Suggested Assignments and Course Outline

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<tr>
<th>Week</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Chapter 1: Matter and Measurement</td>
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<tr>
<td>Week 2</td>
<td>Chapter 2: Atoms, Molecules, and Ions</td>
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<tr>
<td>Week 3</td>
<td>Chapter 2: Atoms, Molecules, and Ions</td>
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<tr>
<td>Week 4</td>
<td>Chapter 3: Formulas, Equations, and Moles</td>
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<tr>
<td>Week 5</td>
<td>Chapter 3: Formulas, Equations, and Moles</td>
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<td>Week 6</td>
<td>Chapter 4: Reactions in Aqueous Solutions</td>
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<td>Week 7</td>
<td>Chapter 5: Periodicity and Atomic Structure</td>
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<td>Week 8</td>
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<td>Week 9</td>
<td>Chapter 6: Ionic Bonds and Some Main-Group Chemistry</td>
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<td>Week 10</td>
<td>Chapter 7: Covalent Bonds and Molecular Structure</td>
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<td>Week 11</td>
<td>Chapter 8: Thermochemistry: Chemical energy</td>
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<td>Week 12</td>
<td>Chapter 9: Gases: Their properties and behavior</td>
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<td>Week 13</td>
<td>Chapter 23: Organic chemistry</td>
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<td>Week 14</td>
<td>Chapter 23: Organic chemistry</td>
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<td>Week 15</td>
<td>Final exam week</td>
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X. Other Information

This is a sample course syllabus guideline. Course materials, method of instruction, evaluation and policy, grading policy, assignments, and other course matters can differ by specific course sections and individual professors. Additional information can be obtained by contacting the appropriate college and department.
Approved:
Undergraduate Curriculum and Academic Policy Committee ________________________
Faculty Senate ____________________