COURSE NUMBER: CHEM 1405

COURSE TITLE: Introduction to Chemistry I

CREDIT HRS: 4  LECTURE HRS: 3  LAB HRS: 3  CLN/REC HRS: 1

PREREQUISITE: High school algebra or equivalent

CO-REQUISITE: Concurrent enrollment in CHEM 1405 (laboratory). You may repeat this course only once after receiving a grade, including “W”.

COURSE DESCRIPTION:
Survey of chemistry for non-science majors including scientific calculations, chemical equations, theory of atoms and bonding, states of matter, nuclear chemistry, elementary thermodynamics and acid-base chemistry.

TEXT BOOK:
Chemistry An Introduction to General, Organic and Biological Chemistry: Timberlake

MASTERING CHEMISTRY HOMEWORK:
This course might involve online homework and would require you to have a Mastering Chemistry pass code. Consult your instructor for further details.

SUPPLIES:
- Scientific calculator that has function keys for natural logarithms (ln key) and base 10 logarithms (log key) and perhaps other features for statistics, %, etc.

EXPECTED STUDENT LEARNING OUTCOMES:
Upon successful completion of this course, students should be able to do the following:

1. Using critical thinking, describe various aspects of atomic structure including isotopes and nuclear properties and periodic trends. (Critical Thinking and Empirical/Quantitative)
2. Understand and determine types of bonding and the resultant compounds, including formulas and names. (Empirical/Quantitative)
3. Classify and determine qualitatively and quantitatively various aspects of chemical and nuclear reactions, including mass relationships, energy, rates, half-life, and equilibrium. (Critical Thinking and Empirical/Quantitative)
4. Qualitatively and quantitatively describe properties associated with the states of matter and solutions, including acids and bases. (Critical Thinking and Empirical/Quantitative)
5. Safely work in the laboratory to collect data (both electronically and manually), make measurements, make observations and conduct reactions; analyze lab data (both electronically and manually) and report results in written form. (Critical Thinking, Communication Skills, Empirical/Quantitative, and Teamwork)

**COURSE REQUIREMENTS:**
Written exams, recitation and lab participation and other assignments as given by instructor.

**COURSE FORMAT:**
May include but not limited to lectures, transparencies, videos, computer software, demonstrations, hands-on exercises, and student presentations.

**METHOD OF EVALUATION:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage of Final Grade</th>
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<tbody>
<tr>
<td>Lecture average</td>
<td>70%</td>
</tr>
<tr>
<td>Recitation</td>
<td>10%</td>
</tr>
<tr>
<td>Lab average</td>
<td>20%</td>
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</tbody>
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100% TOTAL

Lecture average will consist of 4 equally weighted exams (including final). It may also consist of quizzes and/or assignments. See lecture instructor for specific breakdown of lecture component.

**RECITATION:**
Recitation is a component of this course that enhances critical thinking and problem solving. This component will include, but is not limited to, some hands-on activities as well as group activities/discussions, and writing. **Attendance and participation will impact your grade.**

**ATTENDANCE POLICY:**
Students should attend all classes, labs, and recitations. Your attendance and class participation will impact your grade. Ask your professor for the policy that pertains to your course section. Please see the schedule of classes for the last day to withdraw.


**ADA STATEMENT:**
It is the policy of Collin County Community College to provide reasonable and appropriate accommodations for individuals with documented disabilities. This College will adhere to all applicable Federal and state laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to contact the ACCESS office, (room G-200, Spring Creek Campus) or 972.881.5898, in a timely manner if he/she desire to arrange for accommodations.

**ACADEMIC ETHICS:**
The college may initiate disciplinary proceedings against a student accused of scholastic dishonesty. Scholastic dishonesty includes, but is not limited to, statements, acts, or omissions related to applications for enrollment or the award of a degree, and/or the submission of material as one’s own work that is not one’s own. Scholastic dishonesty may involve one or more of the following acts: cheating, plagiarism, collusion, and/or falsifying academic records.
Cheating is the willful giving or receiving of information in an unauthorized manner during an examination, illicitly obtaining examination questions in advance, using someone else's work for assignments as if it were one's own, copying computer or Internet files, and any other dishonest means of attempting to fulfill the requirements of a course.

Plagiarism is the use of an author’s words or ideas as if they were one's own without giving credit to the source, including, but not limited to, failure to acknowledge a direct quotation.

Collusion is intentionally aiding or attempting to aid another in an act of scholastic dishonesty, including but not limited to, providing a paper or project to another student; providing an inappropriate level of assistance; communicating answers to a classmate during an examination; removing tests or answer sheets from a test site, and allowing a classmate to copy answers.