Course Prefix/Number/Title: CHEM 115 Introductory Chemistry

Number of Credits: 4

Course Description:
Chemistry is the central science and is important in understanding other fields such as biology, engineering, geology, physics and medicine to name a few. In Introduction to Chemistry we will be learning what chemistry is and study the interactions matter undergoes. We will see how chemistry can be fascinating and answer many questions on how we can use chemistry to our benefit. There will also be a virtual laboratory session.

Course Objectives:
1. To develop and understand the basic theories and concepts of inorganic chemistry.

2. To understand how scientists use chemistry to solve problems.

3. To develop problem solving skills.

4. To see how chemistry occurs all around us.

Instructor: Dr. Sherri Borowicz

Virtual Online Office Hours: To be announced

Email: sherri.borowicz@dakotacollege.edu

Textbooks: **Zumdahl, Steven S., Introductory Chemistry: A Foundation 6th ed., Houghton Mifflin Co., 2008.**
Woodfield, Brian F., Virtual ChemLab: General Chemistry, Student Lab Manual / Workbook and CD v. 2.5, Pearson Education, Inc., 2006

Course Co-Requirements: Math 102

Lectures and videos: Please read the chapter before you watch the lecture and the video(s). Each lecture and video are around 20 to 40 minutes long.

Lecture assignments: There will be assigned questions in the book for each chapter. You are not required to do all the questions, but I **strongly** encourage you do all of them. The answers for the even questions are in the back of the book. If you have difficult with a problem, do an even problem that is similar.

Glossary: Everyone will be required to contribute to the glossary twice, once before and once after the midterm exam. This is the same value as an assignment. There is a list of words to chose from under resources. You may not do a word that has already been done. Feel free to add pictures with your definition. **These are easy points.**

Quizzes: There will be a quiz after each chapter, except chapter one and two will be combined and taken after chapter two. The quizzes are timed, so always have a calculator, scratch paper and a writing utensil ready.

Tests: There will be a comprehensive midterm and final exam. Both **must** be taken with a proctor. There is a proctor form, found under resources, that must be completed by the end of September.

Lab: There will be a total of 15 virtual labs. Even though you will not be preforming labs in an actually laboratory, you must watch the lab safety video.
You will be doing labs at home.

Lab questions: There will be questions with each lab that are due after each lab. Lab reports for labs at home will need to be turned in on time.

Course Content:
1. Measurement

2. States of Matter

3. Structure

4. Ionic and Covalent Bonds

5. Chemical Formulas

6. Chemical Reactions and Equations

7. Solutions

8. Acids and Bases

9. Stoichiometry

10. Organic Chemistry

11. Biochemistry

Course Evaluation:
Grades are based on assignments, quizzes, exams, and laboratory exercises.

Assignments: 30%
Quizzes: 25%
Exams: 20%
Labs: 25%

90%=A, 80%=B, 70%=C, 60%=D, less than 60% = F

General Education Goals/Objectives: To make chemistry interesting and understandable for the beginning student and to acquire problem solving skills.

Relationship to Campus Theme: *"Nature, Technology and Beyond"* We will break down nature into its simplest form and learn how we can use chemistry to develop new technology and beyond.

Online Class Policies:
Regular participation is expected.
· The student is expected to read the *How to Pass Chemistry* found under resources.
· The student is expected to complete all assignments and quizzes in a timely manner; assignments and quizzes must be completed in the order that they are presented. Two entry to the glossary must also be completed.
· The student is expected to communicate with other students and instructor via course mail or virtual office hours when it is necessary.
· The student will complete each assignment before taking the related quiz.
· Each quiz will be completed online and has a set time limit.
· Once a quiz is opened, it must be completed. It is up to students to be sure they are ready to take a quiz before entering it.
· The midterm and final must be taken with a proctor who is approved ahead of time.
· The student must do each lab, including the lab questions.

Academic Integrity:
The academic community is operated on the basis of honesty, integrity and fair play. It is the expectation that all students, as members of the college community, adhere to the highest levels of academic integrity. This means that:
-Students are responsible for submitting their own work. Student work must not be plagiarized.
-Students must not cooperate on written examinations or work together on evaluated assignments or labs.

To learn how to avoid plagiarism in your work, review the website from Purdue University, Is It Plagiarism Yet?. (http://owl.english.purdue.edu/owl/resource/589/02/)

Violations of academic principles such as cheating, plagiarism or other academic improprieties will be handled using the guidelines outlined in the Student Handbook on pages 18, 19, and 37.

Disabilities and Special Needs:
If you have a disability for which you need accommodation, contact the Learning Center to request disability support services: phone 701-228-5477 or toll-free 1-888-918-5623. Also let me know how I may help in any way.

If you have a technical problem, contact the Distance Education office by calling 1-701-228-5479 or 1-888-918-5623 (toll free).