DAKOTA COLLEGE AT BOTTINEAU

COURSE SYLLABUS

Course Prefix/Number/Title: Chem. 115, Introductory Chemistry

Number of Credits: 4

Course Description: Introduction to basic chemical concepts including measurements, ionic and covalent compounds, chemical calculations, states of matter, energy, solutions, reactions and chemical bonding. The course is designed for non-science majors.

Pre-/Co-requisites: ASC 93

Course Objectives:

1. Students will gain an understanding of the nature of atoms, molecules, elements, chemical bonds and compounds.
2. Students will gain a basic understanding of the changes that take place in chemical reactions. Ability to perform simple stoichiometry calculations.
3. Students will gain an understanding of the phases of matter.
4. Students will gain an understanding and use of scientific methods
5. Students will gain an elementary understanding of the nature of acids and bases.

Instructor: Angie Bartholomay

Office: NSC 111

Office Hours: MWF 9-9:50am, TTh 1-1:50pm

Phone: 701-228-5471

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Lecture/Lab Schedule: Lecture MWF 11:00-11:44am lab T 8:00-9:50am

Textbook(s): Introductory Chemistry, by Zumdahl, 6th edition.

Course Requirements: Grading: Grades will be based on total points using the following percentage system: 100-90, A: 89-80, B; 79-70, C; 69-60, D; <60, F. Exams, research paper, and homework quizzes, and lab reports will be used to determine the final grade. IMPORTANT! Any grievances concerning graded material must be addressed within one week from the time the material is returned to the student.

Exams (5)	500pts
Lab Reports (25 pts. Each)	300pts
Final Lab	100pts
Quizzes (10pts. Each)	100pts
	1000pts

Exams: There will be five exams during the course of the semester. Exams may contain short answer/essay, multiple choice, completion and problems. There will be no makeup exams unless prior arrangements have been made. If you need to be gone for a school related activity or family event, you will be expected make arrangement prior to the event and take the exam before you leave.

Homework: Homework will be assigned throughout the semester and will be discussed in class, these assignments can be used on quizzes. Homework is designed to prepare you for exams and quizzes. These quizzes will be unannounced throughout the semester there will not be make-up quizzes. You are expected to read the assigned pages prior to class. Lecture may not cover everything assigned in the reading, but everything assigned is exam material. If you do not understand something in the readings, please ask questions.

Laboratory: The laboratory portion of the course provides an opportunity to integrate lecture concepts with observable activities. Attendance at lab is mandatory! Failure to wear to wear goggles will result in a reduction in lab report grades and continued omission will result in removal from lab activities and a loss of all remaining lab points available. To obtain credit, you must be actively involved in the laboratory activities and is turned in at the end of the period.

Early Warning Attendance Policy will be followed

Tentative Course Outline:

Week	Chapter and Reading Assignment	Lab Topic
Week 1	Chapter 1-2, Pages 1-18 scientific method Chapter 2, Pages 18-33 measurements & calculations	No Lab
Week 2	Chapter 2-3, Pages 33-66 matter Chapter 4 pages 72-88 Elements	Accuracy and Precision in Measure Quiz demensonal analysis
Week 4	Chapter 4 page 89-104 atoms and ions Exam Chapter #1-4	Density Quiz Density
Week 5	Chapter #5 and 6 page 112-149	Physical Vs Chemical Changes Quiz nomenclature
Week 6	Chapter #6-7 page 149-175	Aqueous Reactions Quiz empirical and molecular formulas
Week 7	Chapter 5-7 Exam Chapter #8 pages 203-229 Chemical Composition	Percent compostion of a hydrate
Week 8	Chapter #9 pages 239-259 Chemical Quantities	Quiz mole to mass conversions Relating moles to coefficients lab
Week 9	Review Chapters 8-9 Exam chapters #8-9	Mole to Mass Relationship Lab Stoichemiometry Quiz
Week 10	Ch. 10, Pages 271-297 Energy	Calorimetry Lab
Week 11	Chapter #11 page 303-332 Chapter #12 pages 356-373 Chemical Bonding	Flame tests
Week 12	Molecular Geometry Exam Chapter #10-12	Molecular Geometry
Week 13	Chapter #14 pages 427-444	Phases of Matter
Week 14	Chapter #15 pages 452-473, Solutions	Solubility of a Salt
Week 15	Chapter #16; pages 487-507, Acids and Bases	Properties of Acids and Bases
Week 16	Final Exam Review	No Lab

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s): General Education Competency #1: Identifies the interrelationships between humans and their environment.

Learning Outcomes #1- Applies scientific methods of inquiry

Learning Outcomes #3- Applies scientific information in everyday life

Relationship to Campus Focus: This course addresses the campus theme by incorporating the role that chemistry plays in our everyday life and the impact it has on our natural world. In addition students will use technology to conduct labs as well as study how technology can be used in chemistry. The course will address the role of chemistry in their everyday life as well as in their future.

Classroom Policies: make-up for missed exams will not be allowed unless prior arrangements have been made. If you must be absent for a school related or family event, you are expected to make prior arrangements and take the exam prior to the event. If you are given permission to take a late exam you will have 48 hours to make it up.
No electronic devices will be allowed. Cell phone must be turned off at all times in class! You will be asked once to put the phone away, if asked again you will be asked to leave.
Be respectful of other students, instructors, and guests!

Student Email Policy:

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:
Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.