DAKOTA COLLEGE AT BOTTINEAU

COURSE SYLLABUS

Course Prefix/Number/Title: CHEM 121- General Chemistry I

Number of Credits: 4

Course Description: This course is tailored for science majors, offering a solid foundation in chemical concepts and principles. It aims to help students develop an appreciation for the essential role chemistry plays in their everyday lives. Additionally, students will gain insights into how these concepts apply to real-world scenarios, enhancing their understanding of chemistry's impact on both scientific and practical aspects of daily life.

Pre-/Co-requisites: Math 103 or appropriate Math Placement Score

Course Objectives:

- **Understand Atoms, Ions, and Molecules:** Students will develop a foundational understanding of the nature and behavior of atoms, ions, and molecules.
- **Quantitative Relationships in Chemical Reactions:** Students will master the quantitative relationships in chemical reactions, including performing various stoichiometry calculations.
- **Scientific Methods in Chemistry:** Students will gain a solid grasp of scientific methods and their application in chemistry, including hypothesis formulation, experimental design, and data analysis.
- **Elementary Thermochemistry:** Students will acquire a fundamental understanding of thermochemistry, including concepts related to heat, energy changes, and reaction enthalpy.
- **Electronic Structure of Atoms:** Students will gain an elementary understanding of the electronic structure of atoms, including electron configurations and orbital theory.
- **Chemical Bonding and Molecular Geometry:** Students will understand chemical bonding, including different types of bonds, predictions of molecular geometry using VSEPR theory, and the concept of hybridization.
- **Fundamental Reaction Types and Descriptive Chemistry:** Students will identify fundamental reaction types, such as acid-base, precipitation, and oxidation-reduction, and understand the descriptive chemistry of simple inorganic ions and molecules.

Instructor: Dr. Neysha Tirado-Class

Office: NSC 112

Office Hours: Wednesdays – 9am-10am and 12pm-1pm. Teams meetings can be scheduled via email.

Phone: (813)-340-1929

Email: neysha.tirado@dakotacollege.edu

Lecture/Lab Schedule: MWF – 10am-10:50am Lecture / Tue or Thur 9am-10:50am Lab

Textbook(s): OpenStax (Chemistry 2e)

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, assignments, 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.

Grading Outline: (700pts Total)

Exams (3) (100 pts each)	300pts
Lab Reports (12) (25 pts. Each)	300pts
Discussion Posts (2) (50pts each)	100pts
Total	700pts

Exams: There will be four 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**.** Athletes must provide a copy of their schedules season games if they align with any scheduled exam by the 3rd week of classes.

Discussion Posts: There will be two discussion assignments during the semester. To receive full credit, students must post an original thread in response to the prompt and reply to at least two classmate's post in a meaningful way. These assignments are designed to promote engagement with the course material and encourage peer interaction. Specific instructions and grading details will be provided within each discussion assignment.

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 proper PPE 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. Labs will be due on the scheduled lab date via Blackboard Lab modules **BEFORE** the start of Lab. **Early Warning Attendance Policy will be followed.**

Tentative Course Outline:

Week	Chapter and Reading Assignment	Lab Topic
1	Chapter #1 & Attendance Quiz	Lab 1
2	Chapter #2-3	Lab 2
3	Chapter #4	Lab 3
4	First Exam Review	Lab 4 & Discussion Post 1
5	Exam 1 & Chapter #5	Lab 5
6	Chapter #6	Lab 6
7	Chapter #7	Lab 7
8	Chapter #8-9	Lab 8
9	Review & Exam 2	Lab 9
10	Ch. 10 and 11	Lab 10
11	Chapter #12	Lab 11
12	Chapter #13-14	Lab 12 & Discussion Post 2
13	Chapter #20	
14	Chapter #21	
15	Final Exam Review	
16	Final Exam (Weeks 10-15)	

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 method on inquiry

Relationship to Campus Focus: This course aligns with the campus theme by examining how chemistry influences both our daily lives and the environment. Students will explore the practical applications of chemistry in everyday scenarios, from household products to environmental issues, and understand its broader impact on the world around us. By the end of the course, students will appreciate the significance of chemistry in both their current experiences and future career paths, equipping them with knowledge applicable to real-world challenges and opportunities.

Classroom Policies:

- Make-up exams should be scheduled in advance, no make-up exams will be allowed in the event of an unexcused absence.
- 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.
- Electronics policy: Laptops and Tablets are allowed during the class for notetaking and access to resources. Cellphones are not allowed during the class perod. Student weill be asked once to put the phone away, if asked again you will be asked to leave the class.
- 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.

AI Student Policy:
Unless otherwise indicated in the course syllabus, or in individual instructions for course assignments, or in the absence of the express consent of the course instructor, students are not allowed to utilize generative AI to help produce any of their academic work. Any violation of this policy will be considered an act of academic dishonesty as outlined within the Dakota College Code of Student Life.

RESPONSIBILITIES

Students	• Responsible to follow the syllabus and assignment instructions regarding use of generative AI for all academic work. • Obtain permission of the instructor prior to the use of generative AI that is outside of the syllabus or assignment instructions. Provide appropriate rationale for how the use of generative AI will enhance the learning experience for the assignment. • In instances where generative AI is permissible, appropriately cite the generative AI program used and indicate where in the assignment it was used, in a brief submission statement.

Faculty	• Determine if the use of generative AI could enhancestudent learning in any assignment of project. • Clearly indicate in all course syllabi if generative AI isallowable for any academic work. • If allowable, give specific parameters for how and whenb enerative AI may be used. • If a violation of generative AI for the individual course/syllabus is suspected, discuss the concern with the student. If violation is still suspected, inform the appropriate semester coordinator/program director.