

Chemistry 122 Course Syllabus

Course: Chem 122, General Chemistry II

Number of credits; 4

Course Description; General Chemistry II will cover topics including intermolecular forces, kinetics, solution chemistry, acid/base chemistry, thermodynamics, electrochemistry, nuclear reactions, and organic chemistry,. Travel may be necessary to visualize the role of chemistry in their everyday lives.

Pre requisites; Chem 121, Math 103

Course Objectives;

- 1) Demonstrates the application of the scientific method of inquiry, associated technology and critical thinking/analysis skills in the study of chemistry.
- 2) Identify the processes of the natural environment and their impact.
- 3) Apply scientific information and principles to everyday life.

Class Schedule: 11:00-11:50 am, MWF, NSC 124 Lab: Tuesday 8:00-9:50 and 10:00-11:50, NSC 121

Text: Chemistry by Chang, 9th Ed. McGraw-Hill

Instructor: Angie Bartholomay

Office/Phone: Nelson Science Center, Room 111

Phone: 228-5471

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Office Hours: M,W,F 10:00am-10:50am, M,F 2:00-3:00pm

Course requirements; Attendance is the key to success!

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. Exams, lab reports, a final lab project, and an independent study project will be used to determine the final grade.

-Exams: The use of periodic tables is permitted and will be provided. If you know you will be gone the day of an exam, **you must take it prior to the absence to receive full credit.**

-Quizzes may be unannounced and cover mathematical aspects we have been studying. Quizzes cannot be made up.

-Laboratory: The laboratory portion of the course provides an opportunity to integrate lecture concepts with observable activities. Chemical splash safety goggles are required and can be purchased at the bookstore. **Attendance in lab is mandatory.** Lab reports not submitted for grades at the next scheduled will receive 70% of the graded report.

Research; You will have a choice of one of the following projects worth 120 pts

1) Should you choose the research paper, it will be 6 pages in length on some current topic in chemistry or related science. The paper must follow all of the requirements of any research paper completed for Composition II .

2) Preparation and assisting with science Olympiad events.

Exams 5 X 100= 500

Quizzes 10 X 20 = 200

Lab reports 13 X 20 = 280

Research 1 X 120 = 120

Total 1100 pts

Classroom policy

Make-up; If you must be absent for a school related or family event, you are expected to make prior arrangements and take the exam & do lab prior to the event. .

-Cell phone and related technology are prohibited in the classroom at all times.

-Be respectful of other students, technicians, instructors, and guests.

-No headphones

Lecture Schedule:	Reading assignment	lab schedule	topic
Week 1	Chapter #11 intermolecular forces		no Lab
Week 2	Chapter #12 solutions		solutions and colloids
Jan. 20	Martin Luther King Day – No Class		
Week 3	Chapter #13 kinetics		rates of chemical reactions
Week 4	Chapter #13 Exam #1 chapters 12 & 13		catalysts
Week 5	Chapter #14 equilibrium		Equilibrium
Week 6	Chapter #15 Acids & bases		crime busters
Feb. 17	President's Day- No Class		
Week 7	Chapter #15		poisons
Week 8	Chapter #16 acid/base equilibria		egg shell titration
Week 9	Chapter #16 Exam #2 Chapters 14, 15 & 16		Forensics
March 16-20	Spring Break		
Week 10	Chapter #17 atmospheric chemistry		Forensics
Week 11	Chapter #18 entropy		Science Olympiad
Week 12	Chapter #19 electrochemistry		electro-chemistry
	Exam #3 Chapters 17, 18 & 19		
Week 13	Chapter #23 nuclear chemistry		nuclear decay
Week 14	Chapter #24 Organic chemistry		organic chemistry
	Easter Break April 19-22		
Week 15	Chapter #24 Exam #4 Chapter 23 & 24		
Week 16	Final Exam		May 13 @12-2pm

General Education Goals/Objectives: This course meets General Education Goal 1: Explains the interrelationships between chemistry and their environment and the role of science in their lives. Specific objectives include

1. Demonstrates the application of the scientific method of inquiry (LO #1).
2. Demonstrates an awareness of the role of science in everyday life (LO #3)

Relationship to Campus Theme: 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.

Academic Integrity: All students are expected to adhere to the highest standards of academic integrity. Dishonesty in the classroom or laboratory and with assignments, quizzes and exams is a serious offense and is subject to disciplinary action by the instructor and college administration. For more information, refer to the Student Handbook.

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.

Disabilities and Special Needs: If you have a disability for which you need accommodations, you are encouraged to contact;

Jacalyn Migler 228-5672 jacalyn.migler@dakotacollege.edu
to request disability support services as early as possible during the beginning of the semester