

College Chemistry 121 Syllabus
Fall 2012

Course Prefix/Number/Title: CHEM 121

Number of Credits: 4 semester hours

Course Description: This class will provide students with a foundation in chemical concepts and principles. This course consists of three one hour lectures and one two hour lab each week.

Course Objectives: General Chemistry I is designed to provide a firm foundation in chemical concepts and principles so that students will develop an appreciation of the vital role that chemistry plays in their everyday lives.

Objectives:

- 1) To learn and retain information essential to a broad knowledge of chemistry
- 2) To understand and utilize the scientific methods of inquiry.
- 3) To practice sound, safe, and sensible laboratory techniques.
- 4) To appreciate the historic development of science.
- 5) To apply scientific information and principles to everyday life.
- 6) To recognize the interrelationship among the sciences, technology and society.

Instructor: Angie Bartholomay

Office: NSC 111

Office hours:

Phone number: 228-5471

Email: angela.bartholomay@dakotacollege.edu

Lecture Schedule: 2:20-3:10pm MWF NSC 104

Lab Schedule: 10:00-10:50am & 1:00-2:50pm Thursday NSC 108

Textbook: Chemistry 10th Edition by Raymond Chang

Course Requirements:

Exams, quizzes, lab reports, and research paper will be used to determine the final grade. Any grievances about graded materials must be addressed within one week from the time the material is returned to the student.

Exams (5)	100 points each	500 points
Lab reports (15)	15 points each	225 points
Research project	100 points	100 points
Final Lab Project	100 points	100 points
Quizzes (10)	10 points each	100 points
<u>Final Exam</u>	<u>100 points</u>	<u>100 points</u>
Total points		1125 points

Exams: There will be five regular exams. Exams may contain short answer, multiple choice, Completion and problems. Periodic tables and calculators may be used on the test.

Homework: Throughout the semester problems will be assigned in order for you to better Comprehend the concepts and math involved. This homework will not be graded, however you Will be able to use these assignments on quizzes. The problems assigned will be similar to those Which will be on the exams. Whenever possible we will discuss the problems in class or you can See one of the chemistry tutors or myself for help.

Quizzes: will be used in lieu of graded homework to check for understanding. Quizzes cannot be Taken if you are absent the day of the quiz.

Laboratory: The laboratory portion of the course provides an opportunity to integrate lecture Concepts with observable activities and is critical to understanding chemical concepts. Safety Goggles are available for purchase in the bookstore. Attendance in lab is mandatory and the Instructor must validate that you actually assisted in the collection of data. Borrowed results Are not acceptable and all parties involved will receive a grade deduction. Lab reports are due at The beginning of the next lab class. Late lab reports will not be accepted. Failure to wear safety Goggles, not following instructions or using unsafe procedures is unacceptable and may result in Your dismissal from further labs.

Final lab- A special activity involving application of the principles of scientific method and inquiry Will occur the last two lab sessions and are due at the end of the last scheduled lab day. A Formal lab report must be completed.

Grades will be based on total points using the following grading scale:

A= 90-100%
 B= 80-89.5%
 C= 70-79.5%
 D=60-69.5%
 F= <59.5%

<u>Tentative Course Outline:</u>		Reading	lab schedule
Week 1	Chapter #1	Chapter #1	lab safety & procedure
Week 2	Chapter #2	Chapter #2	Measurement & Density
Week 3	Chapter #2		
9/7/12	Exam #1- Chapters #1-2		
Week 4	Chapter #3	Chapter #3	Empirical formulas
Week 5	Chapter #4	Chapter #4	Types of chemical reactions
Week 6	Chapter #4		acid/base titration
10/1/11	Exam #2- Chapters #3-4		
Week 7	Chapter #5	Chapter #5	mass/mole relationships
Week 8	Chapter #6	Chapter #6	calorimeter
Week 9	Chapter #6		specific heat
10/24/12	Exam #3 Chapters #5-6		
Week 10	Chapter #7	Chapter #7	qualitative analysis
Week 11	Chapter #8	Chapter #8	rates of reaction
Week 12	Chapter #8		
11/19/12	Exam #4 -Chapter #7-8		
Week 13	Chapter #9	Chapter #9	modeling covalent molecules
Week 14	Chapter #9		
Week 15	Chapter #10	Chapter #10	final lab practice
Week 16	Chapter #11	Chapter #11	final lab
12/7/12	Final Review		
12/13/12	Final Exam		

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 (Objective #1)
- 2.- Demonstrates an awareness of the role of science in everyday life (Objective #3)

Relationship to Campus Theme:

This course addresses the campus them by incorporating role 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 the future.

Classroom Policies:

- 1) Cell phones and electronic devices using headphones are prohibited in the classroom at all times. It is recommended that you do not bring these devices into the classroom or have them

turned off and stowed away.

2) Food and beverages are permitted in accordance with IVN classroom policy.

3) Be respectful of other students, technicians, instructors and guests

Academic Integrity

All students are expected to adhere to the highest standards of academic integrity. Dishonesty in the classroom or laboratory with assignments, quizzes and exams will not be tolerated. Refer to the student handbook for further information.

Disabilities and Special Needs:

If you have a disability for which you require accommodations, you are encouraged to contact your instructor and the learning center (228-5479 or 1-888-918-5623) to request disability support services as early as possible during the beginning of the semester.