

OGLALA LAKOTA COLLEGE

Syllabus for CHEM 233/231 General Chemistry I and Lab

Please read this syllabus carefully; print out and attach it to your notebook!

Locations: Pine Ridge and He Sapa
Lecture Time: Mondays 11a.m. – 1 p.m.
and Online

Lab Time: Pine Ridge Mondays 9-11 a.m.
He Sapa Fridays 9 -11 a.m.

Instructor: Al Schwalm

Office Hours: after the lecture or online

Contact Me: e-mail: aschwalm@olc.edu

Online Registration: Do it today.

Please go to <http://edugen.wiley.com/edugen/class/cls124836/>

Make this web address one of your favorites or add it as an icon on your desktop. If you work from a center computer, you need this address to get online. Write it down, maybe even in your textbook.

1. Register with your OLC e-mail address.
2. Enter the registration code from your textbook.

Go to the student tutorials and learn how to navigate the website. Then take the “Wileyplus” online exam under “Assignments”.

If you do not know how to get to your OLC e-mail, please ask your counselor or center personnel **today**. You can also go to the OLC website, click on “Tuxedo” (an e-mail exchange software) in the task bar at the top, and register your account; there is also a tutorial for Tuxedo on the OLC website.

Course Description: A beginner’s study of inorganic chemistry. This course stresses the concepts and language of chemistry, standards for measurement, atomic structure including periodic properties, nomenclature, reactions and stoichiometry, and the mathematics and algebraic manipulation of existing formulas. Chem 231 must be taken concurrently. Lab work complements the topics covered in the lecture.
If you are pregnant or become pregnant over the course of the semester or have other health conditions, please contact the instructor or lab assistant immediately.

Prerequisites: Math 154 or above, all courses with a grade of “C” or better, or permission of instructor.

Required Textbooks: Introduction to General, Organic, and Biochemistry, 9th Edition; authors: Hein et al. You will need to buy a new book with an **online registration code**

Other Materials: 1) pencil and eraser, 3) ring binder, 4) scientific calculator, 5) ruler

Without these tools you will not be able to complete exams and class and lab assignments.

Descriptive Reading Load: Grade13 reading level. One to two chapters every week.

Types and Amounts of Writing Expected: Assignments and essay questions must be written in complete sentences. Copying sentences from the textbook constitutes plagiarism and will not be accepted.

Copying from the textbook or other students results in full nullification of any work submitted!

Lakota Perspective Provided Through: The Lakota perspective will be provided by way of daily interaction between student and instructor where traditional Lakota values such as patience, respect, and honor will be maintained. The student will be expected to aid the instructor with the inclusion of the Lakota perspective.

Course Objectives:

- Know the international system of measurements and be able to perform unit conversions
- Name chemical substances by and from their chemical formula
- Quantify the composition of chemical compounds and compute molecular and empirical formulas
- Write and balance chemical equations
- Understand stoichiometry (limiting reactant and yield calculations)
- Predict chemical properties of an element from the atomic structure and from the the position in the periodic table
- Predict bonding type and molecular shape of two or more elements

Course Requirements:

Attendance: **You must attend all scheduled classes. You are also expected to be punctual and to stay to the end of the class period.**

You have to maintain your online presence, especially once the course is offered online only. If you do not login for at least 3 hours per week, I will count you as absent.

Missed exams can only be made up for documented absences like sickness, etc.; the make-up test will be modified and possibly more difficult (since you had more time to prepare) **and has to be taken before the next class session.** It is your responsibility to schedule a make-up exam with the instructor. Being absent also does not relieve you from handing in your assignments on time. **Only one make-up exam can be taken.**

In accordance with OLC policy, you will be dropped from the course if you miss more than three consecutive class periods. For the online course, this means that you have not logged into the course and/or did not submit homework assignments or exams. You will also be dropped, if you miss more than five class periods during the semester.

Assignments: There will be seven graded online homework assignments @ **100 points each, due at the assigned date.** Completing an assignment late will result in an automatic **50 point deduction.**

Lab: Each lab period consists of a series of assigned experiments. Each experiment has to be carried out completely and the results (final products) have to be shown to the instructor. Also, each experiment needs to be documented and the work sheets have to be filled out (including all questions) and filed in your ring binder. Ring binders will be collected for grading on the dates specified by the lab instructor. Each lab exercise will be graded on (each experiment has the same number of maximum points):

Completion of the experiment(s)

Handing-in the write-up on time

Exams: There will be three online exams (see attached class schedule); each exam counts for **100 points**

Lecture Grade:

Assignments	700 pts
<u>Exams</u>	<u>300 pts</u>
	1,000 pts

Lab Grade: Equal points for each experiment.

Completion: 50%
Write-up : 50%

The following grade scale will be used:

A = 900-1000
B = 800-899
C = 700-799
D = 600-699
F = below 600.

Course Philosophy: You are not studying and learning for the instructor, but for yourself. Grades are important for your academic career; nevertheless, your professional life really begins after you graduate. Understanding the basic principles of science will help you not only in any professional career, but also to understand and appreciate your surroundings and life itself.

This is a class in general chemistry and this is your chance to start fresh in a new subject and excel in it. But it is up to you. You have to invest your time (at least 4 hours of concentrated reading and 6 hours of problem-solving online per week for homework and exams. You will also have to participate in any threaded discussions and interact with the instructor once the course is migrated more onto the internet. This will take a lot of self-discipline on your time meaning that you have to appropriate enough time of your weekly schedule, sit down in front of the computer and actually do the work.

Tips to Succeed

1. Read the chapter to be dealt with **before** the lecture or the lab, and, at least, before you try to do your homework or take an exam. Then it will be much easier for you to follow the lecture and to ask questions about the material that you did not understand. Do not just “read” your textbook. You need to take notes and solve the example problems.

In your notebook:

- a) Comprehend new concepts **in your own words**.
- b) Define new terms (words) **in your own words**.

A large part of the exams will be essay questions. Be sure that you read through the “Chapter Review” at the end of each chapter and that you can define the “Key Terms” (in full, comprehensible sentences). You should also be able to answer all “Review Questions”, even the ones that are not assigned to the homework. Look through all the worked-out examples of each chapter. It will help you to write them down into your notebook. Work the “practice” problem following the examples (answers to those are given at the very end of each chapter, after the questions and exercises).

3. When you do your homework assignments, go back through the chapter and read it carefully; all the answers are there. For “paired exercises” problems, only odd-numbered problems count for homework credit. Nevertheless, it is important that you also look at the following even-numbered problem, which is very similar. Answers to even-numbered exercises are given in appendix V.
4. Actively take part in the class, especially when problems are worked on during lecture or online

discussions. This will help you solve similar problems in your homework, quizzes, and exams.

5. We will hand out an outline for each lab write-up at the beginning of each lab session. It will hurt you if you are not punctual.
6. Know how to use your calculator, especially how to work with logarithmic numbers. If you feel uncomfortable with math, work through the appendices I, II and III in the textbook and use the online resources on the course website.

If you have a disability and are in need of assistance to successfully complete this class please contact the OLC Coordinator of Support Services, at 455-6040.

CLASS SCHEDULE

Week 1	Mon, Aug 24	Chaps 1 and 2: Scientific Method, Physical States of Matter, Standards for Measurement
Week 2	Mon, Aug 31	Chap 2: Standards for Measurement
Week 3	Mon, Sep 7	Chaps 3 and 4: Elements and Compounds, Properties of Matter, Homework Assignment (HWA) 1 is due
Week 4	Mon, Sep 14	Chap 5: Atomic Theory and Structure;
Week 5	Mon, Sep 21	Chap 6: Nomenclature of Inorganic Compounds; HWA 2 is due
Week 6	Mon, Sep 28	Chap 7: Quantitative Compositions of Compounds; Exam 1 is due
Week 7	Mon, Oct 5	Chap 8: Chemical Equations; HWA 3 is due
Week 8	Mon, Oct 12	No Lab in Pine Ridge ; No lecture; Online Assignment
Week 9	Mon, Oct 19	Chap 9: Stoichiometry; HWA 4 is due,
Week 10	Mon, Oct 26	Chap 9: Stoichiometry;
Week 11	Mon, Nov 2	Chap 10: Modern Atomic Theory and Periodic Table; HWA 5 is due, Exam 2 is due
Week 12	Mon, Nov 9	Chap 10: Modern Atomic Theory and Periodic Table,
Week 13	Mon, Nov 16	Chap 11: Chemical Bonds; HWA 6 is due
Week 14	Mon, Nov 23	Chap 11: Chemical Bonds
Week 15	Mon, Nov 30	EXAM 3 is due, HWA 7 is due
Week 16	Mon, Dec 7	Make-Up Week

Note: The instructor reserves the right to make changes. Students will be informed of any such change.