

South Plains College
Common Course Syllabus: CHEM 1412
Revised January 2023

Department: Science

Discipline: Chemistry

Course Number: CHEM 1412

Course Title: General Chemistry II

Instructor:

Dr. Laci Alexander

Office: Science building S105

Phone: 716-2322

Email: lalexander@southplainscollege.edu

Office Hours: W: 2:15-3:15 PM

TR: 8:00 – 9:30 AM

F: 8:00 AM – 12:00 PM

You may also make an appointment for office hours using the following link:

<https://calendly.com/lalexanderspc/spring-2023>

Available Formats: conventional

Campuses: Levelland

Course Description: Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry. Basic laboratory experiments supporting theoretical principles presented in lecture; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports.

Prerequisite: A grade of "C" or better in CHEM 1411.

Credit: 4 **Lecture:** 3 **Lab:** 3

Supplies:

Safety Goggles – Required, obtained from bookstore

Calculator – Required, must be scientific, **CELL PHONES NOT ALLOWED**

This course partially satisfies a Core Curriculum Requirement:

Life and Physical Sciences Foundational Component Area (030)

Core Curriculum Objectives addressed:

- **Communications skills**—to include effective written, oral and visual communication

- **Critical thinking skills**—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Empirical and quantitative competency skills**—to manipulate and analyze numerical data or observable facts resulting in informed conclusions
- **Teamwork**—to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Student Learning Outcomes:

From Lecture:

1. Define the fundamental properties of matter.
2. Classify matter, compounds, and chemical reactions.
3. Determine the basic nuclear and electronic structure of atoms.
4. Identify trends in chemical and physical properties of the elements using the Periodic Table.
5. Describe the bonding in and the shape of simple molecules and ions.
6. Solve stoichiometric problems.
7. Write chemical formulas.
8. Write and balance equations.
9. Use the rules of nomenclature to name chemical compounds.
10. Define the types and characteristics of chemical reactions.
11. Use the gas laws and basics of the Kinetic Molecular Theory to solve gas problems.
12. Determine the role of energy in physical changes and chemical reactions.
13. Convert units of measure and demonstrate dimensional analysis skills

From Lab:

1. Use basic apparatus and apply experimental methodologies used in the chemistry laboratory.
2. Demonstrate safe and proper handling of laboratory equipment and chemicals.
3. Conduct basic laboratory experiments with proper laboratory techniques.
4. Make careful and accurate experimental observations.
5. Relate physical observations and measurements to theoretical principles.
6. Interpret laboratory results and experimental data, and reach logical conclusions.
7. Record experimental work completely and accurately in laboratory notebooks and communicate experimental results clearly in written reports.
8. Design fundamental experiments involving principles of chemistry.
9. Identify appropriate sources of information for conducting laboratory experiments involving principles of chemistry.

Student Learning Outcomes Assessment: 2-3 questions from each semester will be randomly selected from the regular exams. These will pertain to a pre-selected topic and will be used to determine the extent of improvement that the students have gained during the semester.

- **Minimum Computer Requirements:**

- 1. Person computer with Pentium processor with at least 32 MB of memory, a minimum 2 GB hard drive, running Windows 95 or later (Windows XP or better is preferred) or an updated Mac IOS.

- 2. Web Browser: Google Chrome is most compatible with MasteringChemistry, however firefox or safari will work. Please do not use Internet Explorer.
- 3. A high speed internet connection
- 4. Microsoft Office and Microsoft PowerPoint and Word software (a recent version, preferably 2003 or higher).
- 5. Windows Media Player (the latest version) or other updated Media Player
- 6. Soundcard and/or functioning speakers
- 7. Knowledge of how to navigate Google Chrome web pages and how to deal with pop-up blockers and other devices and warnings on Google Chrome.
- 8. Knowledge of how to download files from the web browser and find them on your computer once they are downloaded.
- 9. Knowledge of basic operations of Microsoft Word, PowerPoint, and Excel.
- 10. Knowledge of how to view and adjust videos within a Media Player.
- 11. Webcam: all exams will be remotely proctored
- **Computer Problems or Blackboard Server Problems**
 - If a student's internet connection goes down, or a student's computer crashes or otherwise becomes inoperable for blackboard, it is the responsibility of the student to have their internet connection and/or computer repaired as soon as possible in order to avoid getting behind in the class. While the computer and/or internet connection is being repaired, the student should seek an alternate computer. There are computer labs on both the Levelland and Reese campuses. Internet problems and/or the crash or inoperability of a computer will not be an acceptable excuse for being late with assignments or exams. It is the responsibility of the student to have a backup plan in place. If the blackboard server goes down, the appropriate time extensions will be determined and announced by the instructor.

Course Evaluation:

- **Four Major Exams**
 - NO MAKEUPS
 - All Multiple Choice questions
 - Each Exam is worth 100 points with the possibility of bonus points
 - Calculators will have their memory cleared and proof of memory clearing must be shown to the instructor before the Exam can be started
- **Notecards**
 - A 3X5 notecard will be permitted for Exams 1-4 Both sides of the notecard may be used and maybe handwritten or typed. Notecards should contain formulas, definitions, and constants, or any other information allowed by the instructor announced in class. Notecards CAN NOT contain any worked examples from class notes, in-class worksheets, practice problems, or any other examples found online. A student should also not write any questions on the notecard.
 - For each unauthorized example found on the notecard points will be deducted from the exam. The length of the exam and the amount of unpermitted information will determine the number of points deducted. Any bonus points for that exam will also be deducted from the exam total. Any unauthorized material

on the notecard is classified as cheating therefore the cheating policies in the syllabus will also be followed.

- **Lab Worksheets, Experiments**
 - **A student will NOT be able to enter the lab without the proper attire (closed toed shoes, long pants, shirts with sleeves, long hair pulled back, and safety goggles). A student that is not dressed appropriately for lab will not be able to perform the experiment and therefore will receive a 0 for that Lab Worksheet.**
 - Lab Worksheet
 - Each Lab Worksheet must be filled out during the Experiment and turned in before the student leaves the lab
 - Each lab group will turn in 1 Lab Worksheet with all group members name on it, all members will receive the same grade
 - Each Lab Worksheet is worth 100 points.
 - Experiments
 - Lab Worksheet is what makes up the student's grade for that Experiment.
 - A missed Lab results in a **0** for the Lab Worksheet.
 - Make-Ups for missed Lab Experiments are **NOT** allowed.
- **Chapter Homework**
 - Each chapter will have a homework section. These will be turned in one to two class days after the chapter material has been finished. The date will be announced on the syllabus and on Blackboard.
- **Dropped Grades**
 - Lowest two Grades Dropped
 - At the end of the semester the Instructor will automatically drop the lowest two grades from the total of the lab and homework. The lowest TWO grades will be dropped.
- **Cell Phone and Laptop Computer Policy**
 - Cell Phones and Laptops may be taken up and kept during lecture and lab if they are a distraction to the student, the instructor or the class
 - The only exception will be due to Special Services recommendations and those will be handled on an individual student to student basis
- **Grading:**
 - Exams are 70%
 - Homework and Labs combined are 30%

Plagiarism and Cheating: Students are expected to do their own work on all projects, quizzes, assignments, examinations, and papers. Failure to comply with this policy will result in an F for the assignment and can result in an F for the course if circumstances warrant. If a student is caught cheating on any of the Major Exams they will receive a 0 for that Exam **and** be the Final Exam will **NOT** replace the lowest Exam score (the 0 stands and cannot be replaced)

Plagiarism violations include, but are not limited to, the following:

1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail order term paper mill;
2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
4. Missing in-text citations.

Cheating violations include, but are not limited to, the following:

1. Obtaining an examination by stealing or collusion;
2. Discovering the content of an examination before it is given;
3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment;
4. Entering an office or building to obtain unfair advantage;
5. Taking an examination for another;
6. Altering grade records;
7. Copying another's work during an examination or on a homework assignment;
8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's;
9. Taking pictures of a test, test answers, or someone else's paper.

4.0 INSTRUCTIONAL POLICIES AND RESPONSIBILITIES

4.1 Course Syllabi

The syllabus for each course should be reviewed annually and revised as appropriate by the faculty. Instructors are encouraged to think and plan course and units of instruction, i.e., content, methods of presentation, teaching aids, student roles and tests in terms of student behavioral objectives. Student participation in planning, where practical, and their orientation about course plans tend to enhance course relevancy. Copies of syllabi should be filed with the department chairperson and the appropriate dean.

4.1.1 Syllabus Statements

Each syllabus should include the following Diversity Statement, Disabilities Statement, Non-Discrimination Statement and Title IX Pregnancy Accommodations Statement appropriate to the location of the course.

4.1.1.1. Diversity Statement

In this class, the teacher will establish and support an environment that values and nurtures individual and group difference and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

4.1.1.2. Disabilities Statement

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early

in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Lubbock Centers (located at the Lubbock Downtown Center) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

4.1.1.3 Non-Discrimination Statement

South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

4.1.1.4 Title IX Pregnancy Accommodations Statement

If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Health and Wellness Center. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact the Health and Wellness Center at 806-716-2529 or email dburleson@southplainscollege.edu for assistance.

4.1.1.5 OPTIONAL STATEMENT - Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations and Frequently Asked Questions, please refer to the Campus Carry page at: <http://www.southplainscollege.edu/campuscarry.php>

SPC Bookstore Price Match Guarantee Policy:

If you find a lower price on a textbook, the South Plains College bookstore will match that price. The difference will be given to the student on a bookstore gift certificate! The gift certificate can be spent on anything in the store.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester. The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on Amazon, Amazon's Warehouse Deals, *fulfilled by Amazon*, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the

price match request. Additional membership discounts and offers cannot be applied to the student's refund.

Price matching is only available on in-store purchases. Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

Note: The instructor reserves the right to modify the course syllabus and policies, as well as notify students of any changes, at any point during the semester.

The following statement should be included in all course syllabi for face-to-face and hybrid instruction options:

If you are experiencing any of the following symptoms, please do not attend class and either seek medical attention or test for COVID-19.

- Cough, shortness of breath, difficulty breathing
- Fever or chills
- Muscles or body aches
- Vomiting or diarrhea
- New loss of taste and smell

Please also notify DeEtte Edens, BSN, RN, Associate Director of Health & Wellness, at dedens@southplainscollege.edu or 806-716-2376. Proof of a positive test is required. A home test is sufficient but students must submit a photo of the positive result. The date of test must be written on the test result and an ID included in the photo. If tested elsewhere (clinic, pharmacy, etc.), please submit a copy of the doctor's note or email notification. Results may be emailed to DeEtte Edens, BSN, RN at dedens@southplainscollege.edu.

A student is clear to return to class without further assessment from DeEtte Edens, BSN, RN if they have completed the 5-day isolation period, symptoms have improved, and they are without fever for 24 hours without the use of fever-reducing medication.

Students must communicate with DeEtte Edens, BSN, RN prior to their return date if still symptomatic at the end of the 5-day isolation.