

South Plains College
Common Course Syllabus: CHEM 1406
Revised August 2021

Department: Science

Discipline: Chemistry

Course Number: CHEM 1406

Course Title: Introduction to Chemistry I

Instructor:

Dr. Laci Alexander

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Office Hours: MW: 2:45 – 3:45 PM; TR: 8:00 – 9:30 AM

F: 9:00 AM – 12:00 PM

Office hours can also be made by appointment.

Available Formats: internet, face-to-face

Campuses: Levelland

Course Description: Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for allied health students and for students who are not science majors. Basic laboratory experiments supporting theoretical principles presented in lecture; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports. This course may not be substituted for CHEM 1411.

Prerequisite: Can NOT be substituted for CHEM 1411. Recommended course for students preparing for education, nursing and other allied health fields (NOT pre-professional fields).

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

Materials:

Textbook –Recommended, Chemistry: An Introduction to General, Organic, and Biological Chemistry by Timberlake 13th Edition

MasterChemistry Access Code

All textbook materials above will be available on Blackboard the first day of class

A lab kit will need to be purchased. Please find information on blackboard.

Supplies:

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. Convert units of measure and demonstrate dimensional analysis skills
2. Define the fundamental properties of matter and classify matter, compounds, and chemical reactions.
3. Determine the basic nuclear and electronic structure of atoms.
4. Distinguish between ionic and covalent compounds and name the different compounds.
5. Identify trends in chemical and physical properties of the elements using the periodic table.
6. Determine the role of energy in physical and chemical reactions.
7. Use the mole concept to determine the number of atoms, moles, grams, and solve elementary stoichiometry-based calculations.
8. Determine the concentrations of solutions using percentage and molarity designations.
9. Use various characteristics of a solution to identify it as an acid or base.
10. Identify and name various organic compounds.
11. Identify and explain the functions of carbohydrates, lipids, and proteins.

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.

Course Evaluation:

- **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

- **Course Specific Instructions**
 - This course is completely online. Please expect to spend approximately 4-6 hrs per week reading, watching videos, completing assignments, and exams weekly. You must be very self-disciplined to complete an online course. All assignments, pre-lab quizzes, and exams etc. must be completed and submitted by the deadlines provided!!

- **Blackboard**
 - The lecture portion of this course is completely online and is conducted through Blackboard. Blackboard may be accessed at <http://southplainscollege.edu.blackboard.com>. For help concerning the use and features of Blackboard you can access the help menu at the top of each Blackboard page that you visit. For technical issues concerning blackboard, contact SPC Blackboard Student Support at the Instructional Student Support at the IS department or at blackboard@southplainscollege.edu or 806.716.2180. Only contact them if you need assistance with login or a browser related question. DO NOT contact them if your computer crashes, your internet fails, you have instructional questions for your instructor, etc. Please include your full name, course registered for with instructor and section noted, and the preferred way for them to contact you.

- **Five Major Exams**
 - NO MAKEUPS
 - All Multiple Choice questions
 - Each Exam is worth 100 points
 - Cheating
 - If a student is caught cheating on any of the Major Exams they will receive a 0 for that Exam **and** be required to take the Final Exam

regardless of average. In the case of cheating, the Final Exam will **NOT** replace the lowest Exam score (the 0 stands and cannot be replaced)

- **Comprehensive Final Exam**
 - The final is REQUIRED
 - 50 Multiple Choice questions, 100points with the possibility of bonus points
 - Scantron is required, available at the bookstore
- **Grading of Exams**
 - The lowest exam grade will be dropped. This can be the final. However, a zero on the final WILL NOT be dropped. A zero on exam 1-5 will be dropped after the final exam.
- **Open note tests**
 - A 3X5 notecard will be permitted for Exams 1-5 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.
- **Experiments**
 - Experiments will be done online in a virtual fashion. I will pre-record the experiments that you will watch. After you watch the experiments you will then complete an assignment on blackboard relating to the lab and the calculations mentioned.
 - Experiments
 - A missed Lab results in a **0**.
 - Make-Ups for missed Lab Experiments are **NOT** allowed.
 - The due date is FIRM. I will NOT accept any late work at all!
- **Chapter Homework**
 - Each chapter will have a homework section on Mastering Chemistry. 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 Mastering Chemistry.
 - You can buy your MasteringChemistry Access code THROUGH BLACKBOARD by going to the MasteringChemistry tab on the left. Or you can buy through the bookstore.
 - When you are signing up for MasteringChemistry please make sure you go THROUGH BLACKBOARD to insert your access code.

- **Discussion Board**
 - Each student will be required to participate in a discussion forum. On blackboard a discussion board will be posted for each exam. You will be required to post on the prompted question and respond to a classmate's response.
 - Each exam will have a discussion board and a prompt will be posted in the announcements the week of each test. If a student posts in the discussion AND comments on someone else's response they will obtain 5 bonus points for each test.

- **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.

- **Late policy**
 - **NO LATE WORK WILL BE ACCEPTED.** This is a definite policy and will not be changed. It is imperative that you stay up on your assignments and labs. This will be a fast paced course and will require a lot of time. You CANNOT shove a weeks worth of material into a few hours. I will not accept ANYTHING late! No excuses, no exceptions. This includes labs, homework, and TESTS. I can see when you log into things, how long you took, and when you are finished. Please stay on top of your work!

- **Grading:**
 - Exams are 70%
 - Homework and Labs combined are 30%

- **Attendance**
 - It is vitally important that you access this course AT LEAST 4 times a week. If you are unable to finish this course, complete a withdrawal slip at the registrar's office. **Students will be dropped from the course with an 'F' if they have failed to login and participate in the online course for 7 or more consecutive days**

- **Academic Integrity**
 - Cheating (as defined in the SPC General Catalog) will not be tolerated. If a student is caught cheating a grade of zero will be given and the instructor has the right to drop the student from the course

- **Online Disclaimer**
 - This is to notify you that materials you may be accessing in chat rooms, messages, discussion forums, or unofficial web pages are not officially sponsored by the instructor of South Plains College. The United States Constitution rights of free speech apply to all members of our community regardless of the medium used. The instructor and South Plains College disclaim all liability for data, information, or opinions expressed in these forums.

- **Email: WHEN YOU HAVE QUESTIONS, PROBLEMS, OR COMMENTS, you can email through Blackboard messages, or at laalexander@southplainscollege.edu, or through the remind app.**
 - I will respond to your message within 48 hours if I receive your email between 8:00 AM Monday and 3:30 PM Thursday (excluding holidays). Emails received during the time period lasting from 3:30 PM Thursday to 8:00 AM Monday of the following week will receive a response within 48 hours of that Monday.
 - **Expectations when Corresponding:** Please be polite, courteous, and respectful when using Blackboard message, email, discussion forums, and remind app. Do not use profanity under any circumstances. Do not write disrespectful, insulting, mean, rude, profane, insensitive, or any other hurtful messages or comments under any circumstances. Failure to abide by this policy will result in the appropriate disciplinary actions. Students are expected to maintain a pleasant learning environment for themselves as well as for their classmates. Therefore, if, in the view of the instructor, a student is disrupting the class the appropriate disciplinary action will be taken.

- **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.

- **Logging into the Course**
 - You are not allowed to give your user ID and/or password to anyone. You will be dropped and given an F for your final grade if someone besides you is caught logging into this course under your user ID and/or password.

- **Copyright Notice**
 - All material presented by the instructor in the course is copyright protected. The material presented by the instructor may not be modified or altered in any way. You have permission to print out one copy of any material presented by the instructor in this course (ex. Class information sheet, course orientation, and chapter module PowerPoint Presentations or videos). The one copy must only be used for your personal educational use during this semester. The material may not be altered or modified in any way. The material may not be distributed in any way. You have permission to download the same material to your computer hard drive or other medium in order to print out the material needed. Any material downloaded may not be altered or modified in any way. The downloaded material may not be distributed in any way.

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.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, aggressive, or demeaning. Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

Diversity Statement: In this class, the teacher will establish and support an environment that values and nurtures individual and group differences 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.

Disability 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, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Nondiscrimination Policy: 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.

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 Director of Health and Wellness. 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 Director of Health and Wellness at 806-716-2362 or [email cgilster@southplainscollege.edu](mailto:cgilster@southplainscollege.edu) for assistance.

Campus Concealed Carry: 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>
Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

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.