South Plains College
Common Course Syllabus: CHEM 1406
Revised January 5, 2026

Department: Science

Discipline: Chemistry

Course Number: CHEM 1406

Course Title: Introductory Chemistry I

Available Formats: conventional, internet, hybrid, dual credit

Campus: 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. Semester Hours: 4 Lecture Hours: 3 Lab Hours: 3 Note: This course may not be substituted for CHEM 1411.

Prerequisites: None

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

Instructor: John Heh
Phone: 806.716.2323
E-mail: jheh@southplainscollege.edu

Office Hours: Tuesdays and Thursdays 9 AM to 11 AM and 1 PM to 2:30 PM
Fridays 9:30 AM to 10:30 AM

E-mail: When you have questions, problems, or comments, you can e-mail me through BlackBoard Messages. Please use the BlackBoard Messages tool to e-mail me. Do not use my South Plains College e-mail address unless it is an emergency. I will respond to your e-mail within one business day (excluding holidays). I generally will not check my e-mail from 12:00 noon on Friday to 8:00 AM Monday of the following week. I generally will not check my e-mail during holidays. Therefore, there will usually be no response during those times.

Expectations when Corresponding: Please be polite, courteous, and respectful when using BlackBoard Messages, e-mail, discussion forums, and chat rooms. Do not use profanity under any circumstances. Do not write disrespectful, insulting, mean, rude, profane, insensitive, or 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.

Online Disclaimer: This is to notify you that materials you may be accessing in chat rooms, emails, discussion forums or unofficial web pages are not officially sponsored by the instructor or 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.

Textbooks:

1. CHEM 1406 Textbook by John Heh. All lecture material, including this textbook is provided to you in BlackBoard on PowerPoints, Word files, PDF documents, and videos.
2. The Lab Manual is on BlackBoard through a PDF file.

Supplies:

1. Scientific Calculator (TI-30XIIS is preferred if you do not have one already)
2. Safety Glasses
3. 5 Scantron Sheets: Apperson Form 29240

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.

Course Evaluation:

Lecture Exams: There will be five lecture exams covering the material that is discussed during the lecture portion of this course. The schedule for the lecture exams is given in this course information sheet. Each lecture exam will count 100 points. The lecture exams will be approximately 25 questions. The format will be multiple choice. A scantron is required for the lecture exams. No outside material may be used on the lecture exams. You may only reference what is provided to you on the lecture exams. You will have the 75 minute designated class time to finish the exam. There will be no make-ups for lecture exams. A missed lecture exam will receive a grade of zero.

Exam 1 (Chapters 1, 2):	100 points
Exam 2 (Chapters 3, 4):	100 points
Exam 3 (Chapters 5, 6, 7):	100 points
Exam 4 (Chapters 8, 9, 10):	100 points
Exam 5 (Chapters 11, 12):	100 points

The material scheduled for each lecture exam is subject to change. Changes will be announced if necessary.

There will be no make-ups for lecture exams unless a student is hospitalized or has a quarantine note from DeEtte Edens. This will require documentation to be provided to the Dean of Students and/or the Associate Director of Health & Wellness. All other missed lecture exams will receive a grade of zero.

Homework: Homework will be in the form of practice problems on the PDFs. The practice problems will not be collected and graded. It is essential that the practice problems be completed, as the practice problems will be very similar to the types of problems encountered on the chapter exams. Formative Assessments will be used. These will be conducted on BlackBoard and will **not** count towards your overall grade.

Lab Experiments: The lab experiment portion of this class will be comprised of topic discussion, homework problems practice; and most commonly, lab experiments. The lab portion of this course will consist of group work.

Lab Grade: The lab grade will come from lab reports. For most lab days, we will have a lab report that covers the material accomplished that day in lab. The lab reports will be completed in groups and the due date for the lab reports will be announced during lab. Most lab reports will be due the same day the lab is performed. The lab groups will consist of 2 to 4 students. The lab experiments must be completed on the day that they are scheduled. There will be no make-ups for the lab experiments or the lab reports. If a student misses a lab report, a grade of zero will be assigned for that lab report. The lab reports count 10 points each. There will be ONE lab report turned in per group. Make sure your name is placed on the lab report when it is turned in. If your name is not on the lab report, you will receive a grade of zero. There will be fourteen graded lab reports. The format will mostly be multiple choice. The lowest four lab report grades will be dropped.

Therefore, 10 lab reports will count for a total of 100 points.

Lab Reports (10 points each) 100 points total

The material scheduled for each lab is subject to change. Changes will be announced if necessary.

There will be no make-ups for the lab reports unless a student is hospitalized or has a quarantine note from DeEtte Edens. This will require documentation to be provided to the Dean of Students and/or the Associate Director of Health & Wellness. All other missed lab reports will receive a grade of zero.

Late Work: *As stated above, no late work (make-ups) will be accepted for the lecture exams or the lab reports unless a student is hospitalized. This will require documentation to be provided to the Dean of Students and/or the Associate Director of Health & Wellness. All other missed lecture exams and lab reports will receive a grade of zero.*

Extra Credit: There will be possible extra credit during the semester. More information and the point value will be given at the discretion of the instructor.

Exam Grades: Out of all of the exam grades (5 Lecture Exams), the 1 lowest exam grade will be dropped. Only 1 grade will be dropped. For instance, if the lowest grades are a 10, 20 and 20; then only the 10 will be dropped. Or if the lowest grades are 30, 30, 30 and 30; then only 1 of the 30's will be dropped.

Final Course Grade: At the end of the semester, all of your points earned will be added together. Your final course grade will come from your point total. The point totals and their corresponding final course grades are listed below:

Point total:	**Final Course Grade:**
445 and above	A
395 – 444	B
345 – 394	C
295 – 344	D
0 – 294	F

If you are a dual-credit student, your grade may be required to be input in the form of a numerical grade. If that is the case, at the end of the semester, I will take your point total and divide that by 500

and then multiply by 100. For instance, if you have 455 total points at the end of the semester, then I will take 455/500 which equals 0.91 and multiply by 100 to make it a 91 as the numerical grade.

Attendance Policy: Students are expected to attend all classes in order to be successful in this course. Students are officially enrolled in all courses for which they pay tuition and fees at the time of registration. Attendance will be taken until the 12th class day (official census date). Students who enroll in a course but have "Never Attended" by the official census date, as reported by the faculty member, will be administratively dropped by the Office of Admissions and Records. If it is determined that a student is awarded financial aid for a class or classes in which the student never attended or participated, the financial aid award will be adjusted in accordance with the classes in which the student did attend/participate and the student will owe any balance resulting from the adjustment. This is in accordance with the policies set forth in the SPC General Catalog. This course information sheet contains the schedule of lectures and labs. If you are unable to finish this course, complete a withdrawal slip at the registrar's office.

Dropping a Course: Students may drop courses through Texan Connect, the Admissions and Records Office, or Advising and Testing Center through the late registration period.

After late registration has closed, a student must complete the online Student Initiated Drop Request to drop a course.

Students may also drop courses in person at any campus location by completing a Student Initiated Drop Form. Complete a Student Initiated Drop Form and return the signed form to the Levelland Admissions and Records Office, the Student Support Center at the Lubbock Downtown Center, the Lubbock Career and Technical Center, or Plainview Center. You must have a picture ID to complete the drop.

A mark of "W" will be given for student-initiated drops that occur prior to and through the last day to drop as indicated in the online Academic Calendar found here: https://www.southplainscollege.edu/academiccalendar/index.php.

Syllabus Statements: For information about Artificial Intelligence, Disabilities, Non-Discrimination, Intellectual Exchange, Title IX Pregnancy Accommodations, CARE (Campus Assessment, Response, and Evaluation) Team, Campus Concealed Carry, and COVID-19, please use this link: https://www.southplainscollege.edu/syllabusstatements/.

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 may result in an F for the assignment and can result in an F or X for the course, if circumstances warrant.

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

1. Submitting work that has been purchased, borrowed, or downloaded from another student or an online term paper site.
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.

5. Violating the Artificial Intelligence policy, as outlined in the syllabus. For more information on AI, please reference this in the syllabus statements: https://www.southplainscollege.edu/syllabusstatements/

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.

SPC Tutors: Tutoring is FREE for all currently enrolled students. Make an appointment or drop-in for help at any SPC location or online! Visit the link below to learn more about how to book an appointment, view the tutoring schedule, and view tutoring locations.
http://www.southplainscollege.edu/exploreprograms/artsandsciences/teacheredtutoring.php

Brainfuse
You also have 180 FREE minutes of tutoring with Brainfuse each week, and your hours reset every Monday morning. Log into Blackboard, click on the tools option from the left-hand menu bar. Click on the Brainfuse link and you will automatically be logged in for free tutoring. You may access Brainfuse tutors during the following times:
Monday – Thursday: 8pm-8am
6pm Friday – 8am Monday morning
For questions regarding tutoring, please email tutoring@southplainscollege.edu or call 806-716-2241.

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.

Lab Safety: The chemistry laboratory is a potentially hazardous environment. Therefore, all students must follow all of the safety rules passed out to you during the safety presentation. The students must also follow any specific safety rules listed in the lab manual and any that the instructor may announce during a lab period. A student not following the safety rules may be asked to leave the laboratory.

Safety Rules: These safety rules will be passed out in lab. The safety rules must be followed. Failure to do so can result in you being asked to leave the laboratory. You will be required to sign a sheet indicating you have read and agreed to follow the safety rules before being allowed to perform an experiment.

Copyright Notice: All material presented by the instructor in this online class 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 online class (class information sheet, course orientation, and chapter PowerPoint or PDF presentations). 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. Any material downloaded must only be used for your personal educational use. The downloaded material may not be altered or modified in any way. The downloaded material may not be distributed in any way.

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.

Course Schedule: The following table contains the tentative course schedule. All material (including lecture material, experiment material, and material scheduled for the chapter exams) is subject to change. Also, all dates are subject to change. Changes will be announced if necessary.

CLASS SCHEDULE SUBJECT TO CHANGE					
WEEK	**WEEK OF**	**M LECTURE**	**M LAB**	**W LECTURE**	**W LAB**
1	JANUARY 12	CHAP 1	NO LAB	CHAP 1	NO LAB
2	JANUARY 19	**NO CLASS**	**NO LAB**	CHAP 1/2	Safety Rules
3	JANUARY 26	CHAP 2	EXP 1 - Measurements	CHAP 3	EXP 2 - Density
4	FEBRUARY 2	CHAP 3	EXP 3 - Elements and Compounds	**EXAM 1**	NO LAB
5	FEBRUARY 9	CHAP 4	EXP 11 - Spectroscopy	CHAP 4	WORKSHEET
6	FEBRUARY 16	CHAP 4	EXP 4 - Mole Ratios	CHAP 4/5	EXP 5 - Hydrates
7	FEBRUARY 23	CHAP 5	EXP 9 - Calorimetry	**EXAM 2**	NO LAB
8	MARCH 2	CHAP 6	EXP 7 - Boyle's Law	CHAP 7	WORKSHEET
9	MARCH 9	CHAP 7	EXP 6 - Molar Mass	CHAP 8	WORKSHEET
10	MARCH 23	CHAP 8	WORKSHEET	**EXAM 3**	NO LAB
11	MARCH 30	CHAP 9	EXP 10 - Reactions	CHAP 9	WORKSHEET
12	APRIL 6	CHAP 9/10	EXP 12 - Acids and Bases	CHAP 10	NO LAB
13	APRIL 13	CHAP 10	NO LAB	**EXAM 4**	NO LAB
14	APRIL 20	CHAP 11	NO LAB	**NO CLASS**	**NO LAB**
15	APRIL 27	CHAP 12	NO LAB	**Final Review**	NO LAB
16	MAY 4	**EXAM 5 - MAY 4 at 8:00 AM**			