

Tarleton State University
Department of Chemistry, Geosciences, and Physics
Course Syllabus
Summer Semester, 2021

CHEM 1412 College Chemistry II - Lab T, Th 1:00 -? Room 427, SCIENCE

Lab Coordinator:

Dr. Linda Schultz schultz@tarleton.edu

Phone: (254)968-9143 (office), (325)642-0490 (cell), or (325)643-1384 (home)

Office: Room 407, SCIEN

Office Hours: by appointment

Course Prerequisites: Current enrollment in CHEM 1412, College Chemistry II, Lecture.

Course Description:

This is the laboratory which accompanies CHEM 1412, College Chemistry II.

The course consists of three (3) lecture hours per week and three (3) laboratory hours per week for 4 hours of college credit.

Required Texts and Materials:

General Chemistry II, CHEM 1412 - Laboratory Manual, Department of Chemistry, Geosciences, and Physics, Tarleton State University will be available online through LabFlow.com. **This is a required purchase, but is only valid for one semester.** You must purchase the lab manual to have access to the online assignments, quizzes and tests for your lab section. You will also need to take writing materials with you for the first scheduled lab class. Online assignments will open on Friday, June 25th, and check-in will be on Tuesday, June 29th.

Calculator - NO CELL PHONE USE for talking/texting in Lab. However, the stopwatch function will be useful for some experiments.

PPE - Protective eyewear for laboratory – must be goggles; can be purchased at Stockroom. **You are allowed to wear a face covering at all times, both in the classroom and lab.** **Gloves will be provided.** **Clothing** – appropriate as discussed in the lab manual.

Attendance Policy:

Attendance, virtual or F2F, is mandatory at your scheduled lab time each week. Many of the assignments, quizzes and tests are online only, so please watch your lab Canvas page for announcements and due dates of the lab assignments.

Due to COVID issues, physical distancing (6 ft) should be maintained at all times. However, during “normal” semesters, CHEM 1412 students work with lab partners for many experiments. This semester, physical distancing should still be observed when working with partners as much as possible.

Pre-Lab Assignments – from the lab manual. These are found after the data sheets (except for Exp. 5 and 9). Complete these prior to doing the experiment and **turn them in with the data sheets**. All data sheets and any required graphs will be submitted and graded as assignments through Canvas. Therefore, they must be in an acceptable format, such as MS Word or pdf. If they are not in an acceptable format, they will not be accepted.

Lab Safety Policy:

All safety policies are described in the Lab Manual and the student is responsible for familiarizing him/herself with these policies. Failure to follow these policies will result in expulsion from lab and may result in a failing grade in the course.

University Policy:

The student is expected to be familiar with student responsibilities as outlined in the course syllabus, the current University Catalog and TSU Student Handbook.

The departmental Academic Honesty Policy can be found in the Laboratory Manual.

Students with documented disabilities may request accommodations that will enable them to participate in and benefit from educational programs and activities. To ensure that services will be available in an efficient and timely manner, students with disabilities are strongly encouraged to contact Student Disability Services, Math Bldg. Suite 201, (254)968-9400.

Grading Policy:

The Lab Grade is based on a percentage of 1000 points as described in the Lab Manual. Assignment of points is given in the **Current Lab Schedule**. The Lab Grade is 25% of the course grade. However, **the student must earn a passing grade in both lab and lecture to pass the course.**

Make-up policy in the Lab Manual is for “normal” semesters. If you are unable to attend a F2F lab, arrange to attend the Zoom session at the assigned time and do the lab online.

* If you are unable to take a quiz or exam at the time stated in Canvas please email me at least 24 hours ahead so I can schedule a different testing window for you to take the assessment. Emailing me after the quiz or exam is not preferred and your request may not be honored.

** Course assignments and due dates are subject to change as deemed necessary by your instructor.

Course Schedule: **Note: The course schedule is tentative. The instructor reserves the right to change this syllabus at any time. Any changes will be announced in class in advance.**

Laboratory Course Objectives:

Upon completion of this Lab sequence, the student will be able to demonstrate a satisfactory understanding of:

1. What solutions are and how colligative properties are influenced by concentration.
2. How the rates of chemical reactions are measured, influenced by concentration and other factors and how mechanisms are used to describe reaction processes and how they may be postulated.
3. Basic principles of chemical equilibrium and be able to write equilibrium constant expressions for chemical reactions.
4. The chemical natures of acids and bases and be able to calculate pH of solutions of strong and weak acids and bases, salts, and buffer solutions.
5. Factors affecting solubility equilibria and be able to calculate solubilities.
6. Chemical factors influencing the environment.
7. Electron exchange in chemical reactions, the basic principles of electrochemistry, and be able to balance oxidation / reduction equations.
8. The properties of metals and nonmetals and coordination chemistry.
9. Basic organic and biological chemistry.
10. Scientific accuracy, precision, and uncertainty for recording and analysis of chemical data.
11. Computer literacy including word processing, spreadsheet and graphing applications
12. Ability to follow safe laboratory procedures and appropriate waste handling methods

Safety Measures

Tarleton State University adopted policies and practices for the Spring 2021 term to limit transmission of the novel coronavirus. **Students are required to observe the following practices while participating in face-to-face courses and course-related activities (office hours, moving between classes, study spaces, academic services, etc.):**

· **Self-monitoring** – Students should follow CDC recommendations for self-monitoring. Students who exhibit symptoms of COVID-19 (with or without fever) should participate in class remotely and should not participate in face-to-face instruction.

See <https://www.tarleton.edu/roadmap/personal-responsibilities/> for more information. Students who test positive for COVID-19 or experience symptoms consistent with COVID-19 are required to self-report to Tarleton State University via this form.

· **Face coverings** – All students may properly wear face coverings in all public spaces on campus, including classrooms.

· **Physical Distancing** – Physical distancing should be maintained between students, instructors, and others in course and course-related activities.

Classroom Entrance and Exit – Students should leave classrooms promptly after class activities have concluded each day. Students should not congregate in hallways or other areas and should maintain a safe physical distance when waiting to enter classrooms and other instructional areas.

Personal Illness and Quarantine/Isolation Students who are required to quarantine (see <https://www.tarleton.edu/roadmap/isolation-v-quarantine/>) must participate in course and course-related activities remotely and must not attend face-to-face course activities. Students in quarantine are expected to participate in courses and course activities/assignments unless they have symptoms too severe to participate. Students placed in isolation should contact the instructor about individual participation in relation to severity of illness. Students who test positive for COVID-19 or who are experiencing symptoms consistent with COVID-19 are required to self-report to the Dean of Students Administrative Office through the COVID-19 Report Form. For any questions or concerns, please contact the Dean of Students Administrative Office at 254-968-9080.

Blended Hybrid-HyFlex Course Delivery

Blended Hybrid-HyFlex courses are designed so that students can choose to attend courses in two modalities: face-to-face (with the potential for rotation to maintain a safe physical distance) or at the same time as the face-to-face class meetings but from a different location (remote synchronous-Zoom). Students must attend class in one of these two instructional modalities. Repeated absences may impact the student's ability to be successful in the class and may lead to failure to earn credit for the course. Class attendance is mandatory for passing. Missing more than 3 classes may require retaking the class the next semester it is offered.

Remote asynchronous instruction (attending remotely at a later time) will be available only by permission of the instructor for a limited period of time and requires extenuating circumstances be present. You must email me to access the class recording. Extenuating circumstances for remote asynchronous learning include illness/quarantine/isolation by the student that prohibits face-to-face or remote synchronous participation (Zoom) and documented in the COVID 19 Report Form, other COVID related illness or hardship, or a university sanctioned event that requires the student to be absent from class (<http://catalog.tarleton.edu/academicaffairs>).

Note, however, that programs governed by licensure and/or accreditation/certification requirements may require students to attend face-to-face laboratories, simulations, and clinical experiences to progress through the program and successfully graduate with eligibility for the licensure or certification examination.

To make course meetings accessible asynchronously when needed, class meetings will be recorded and shared upon request and approval. The class recordings will be shared with students only in the individual section in which it was recorded to avoid violations of the Family Educational Rights and Privacy Act (FERPA).

Academic Integrity Statement

Tarleton State University's core values are integrity, leadership, tradition, civility, excellence, and service. Central to these values is integrity, which is maintaining a high standard of personal and scholarly conduct. Academic integrity represents the choice to uphold ethical responsibility for one's learning within the academic community, regardless of audience or situation.

Academic Civility Statement

Students are expected to interact with instructors and peers in a respectful manner that enhances the learning environment. Instructors may require a student who deviates from this expectation to leave the face-to-face (or virtual) classroom learning environment for that particular class session (and potentially subsequent class sessions) for a specific amount of time. In addition, the instructor might consider the university disciplinary process (for Academic Affairs/Student Life) for egregious or continued disruptive behavior.

Academic Excellence Statement

Tarleton holds high expectations for students to assume responsibility for their own individual learning. Students are also expected to achieve academic excellence by:

- honoring Tarleton's Core Values of integrity, leadership, tradition, civility, excellence and service.
- upholding high standards of habit and behavior.
- maintaining excellence through class attendance and punctuality.
- preparing for active participation in all learning experiences.
- putting forth their best individual effort.
- continually improving as independent learners.
- engaging in extracurricular opportunities that encourage personal and academic growth, reflecting critically upon feedback and applying these lessons to meet future challenges.

Academic Affairs Service Statement

Tarleton faculty, staff, and students are expected to model responsible citizenship through service activities that promote personal and academic growth while enhancing the university, local, regional, national, and global communities. These activities will foster a culture of academic/ public engagement that contributes to the achievement of the university's mission and core values.

Academic Honesty Statement

Tarleton State University expects its students to maintain high standards of personal and scholarly conduct. Students guilty of academic dishonesty are subject to disciplinary action. Academic dishonesty includes, but is not limited to, cheating on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials. The faculty member is responsible for initiating action for each case of academic dishonesty that occurs in his/her class.