Principles of Chemistry II

Last Updated: Tue, 12/16/2025

Course prefix: CHEM

Course number: 1212K

Section: HP

CRN
30608

Instructor first name: Carrie

Instructor last name: Shepler

Semester: Spring

Academic year: 2026

Course description:

This course is the second of a two-semester sequence that introduces the foundational concepts of chemistry. General topics covered in lecture include chemical kinetics, chemical equilibrium, acids and bases, buffers and titrations, electrochemistry, coordination chemistry, and fundamental principles of main-group chemistry. Laboratory focuses on fundamental lab skills as well as analytical and synthetic chemistry. The laboratory component is designed to develop your experimental skills as you collect and evaluate evidence for the concepts, principles, and theoretical models discussed in lecture.

Academic honesty/integrity statement:

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For information on Georgia Tech's Academic Honor Code, please visit this page or this page.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for a violation.

If at any time throughout the semester you have a question involving academic integrity or the Honor Code, please do not hesitate to reach out to your instructor or a First-year Chemistry faculty member.

Collaboration and Group Work

You are encouraged to work with classmates on in-class problem solving and to study with others outside of class. Collaboration on homework assignments is acceptable, and you

should keep in mind that the effort you put into these assignments will be reflected in what you gain from them. Discussion of the material in laboratory assignments is appropriate; however, all work submitted in reports must be prepared independently.

Student-Faculty Expectations Agreement
At Georgia Tech we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. See Student-Faculty Expectations in the Catalog for an articulation of some basic expectation that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, we encourage you to remain committed to the ideals of Georgia Tech while in this class.

We expect students to arrive prepared for class, to participate in class activities and discussions, and to use office hours for additional help when needed.

In return, students should expect instructors to arrive prepared for class, to engage them in activities and discussions that further their understanding of course material, and to be available during office hours.

Students should expect to spend, on average, 6 – 8 hours per week outside of the classroom and laboratory to excel in this course. This includes time spent reading the textbook and watching lecture videos, taking and reviewing notes, working problems, and writing laboratory reports. To succeed in this course, students *must* develop a pattern of preparing for class, attending class, and then reviewing after each class period.

Core IMPACTS statement(s) (if applicable):

This is a Core IMPACTS course that is part of the STEM area.

Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help master course content, and support students' broad academic and career goals.

This course should direct students toward a broad Orienting Question:

- How do I ask scientific questions or use data, mathematics, or technology to understand the universe?

Completion of this course should enable students to meet the following Learning Outcome:

- Students will use the scientific method and laboratory procedures or mathematical and computational methods to analyze data, solve problems, and explain natural phenomena.

Course content, activities and exercises in this course should help students develop the following Career-Ready Competencies:

- Inquiry and Analysis
- Problem-Solving
- Teamwork