

CHE 128 Introductory Chemistry

Section D — TR 10:00 – 11:15 AM — Daly Innovation & Collaboration Building 210

Instructor: Dr. Matthew Wilson

Office: SC 239

Email: mwilson@ut.edu

Phone: 257-3128

Office Hours: Dr. Wilson will be available 1:00 – 2:30 PM Monday through Thursday, and at other times by appointment.

Course Description: This course deals with the fundamental principles of chemical science and basic calculations in science. Topics include scientific measurement, states of matter, solution chemistry, acid-base theory, chemical equilibrium, and oxidation-reduction reactions. This course is intended for science majors as preparation for taking CHE 150/152/153L.

Learning Objectives:

- Understand the principles of measurement and dimensional analysis.
- Learn the language of chemistry and chemical naming conventions.
- Learn characteristics of different types of chemical reactions and the relationship between chemical species in a reaction.
- Understand the relationships between the physical properties of a gas and the model for an ideal gas.
- Apply the concepts of energy and heat.

Required Materials: *Chemistry: A Molecular Approach*, N. J. Tro, 4th ed. and a non-programmable scientific calculator (a phone or other electronic device may *not* be substituted for a calculator).

Attendance: Attendance is not mandatory, but necessary. Supplemental materials may be distributed in class, and topics may not always be covered in the text.

Communication: Class announcements, lecture notes, course documents, and grades will be posted on Blackboard (<http://ut.blackboard.com>). Students are responsible for monitoring their UT email account and the course Blackboard site.

Homework: The MasteringChemistry online homework system (<http://www.masteringchemistry.com>) will be used in conjunction with this course. No credit will be given for late submissions. The maximum number of course points that can be earned from homework is 120 points.

Exams: Each exam will be worth 120 course points. A missed exam will count as a zero, unless excused by your instructor. A decision to excuse an absence from an exam will only be considered if supported by written documentation. An excused in-class exam will be replaced by the average of the student's other three in-class exam grades; no make-up exams will be given. Any requests regarding the regrading of an exam must be made within one week of receiving the graded exam; your instructor reserves the right to regrade the entire exam.

Grades: A total of 720 points are possible in the course. Letter grades will be assigned as follows:

Grade	Point Range	Percentage Range	Grade	Point Range	Percentage Range
A	720 – 648 points	100.0 – 90.0%	C	539 – 504 points	74.9 – 70.0%
AB	647 – 612 points	89.9 – 85.0%	CD	503 – 468 points	69.9 – 65.0%
B	611 – 576 points	84.9 – 80.0%	D	467 – 432 points	64.9 – 60.0%
BC	575 – 540 points	79.9 – 75.0%	F	431 – 0 points	59.9 – 0.0%

Schedule: The following is a tentative schedule of chapter sections to be covered and exam dates:

Date	Topic
August 28	Introduction and Math Review (Appendix I.A)
August 30	Units of Measurement (Section 1.6)
September 4	Certainty in Measurements (Section 1.7)
September 6	Dimensional Analysis (Section 1.8)
September 11	Matter (Sections 1.1, 1.3–1.4, 2.3)
September 13	Atoms (Sections 2.4–2.6)
September 18	The Periodic Table (Sections 2.7–2.8)
September 20	The Mole (Sections 2.9)
September 25	Exam 1
September 27	Compounds (Sections 3.2–3.4, 3.8)
October 2	Composition of Compounds (Sections 3.9–3.10)
October 4	Ionic Compounds (Section 3.5)
October 9	Molecular Compounds (Sections 3.6)
October 11	Solutions (Sections 4.4–4.5)
October 16	Exam 2
October 18	Chemical Equations (Section 3.11, 4.7)
October 23	Stoichiometry (Sections 4.2–4.3)
October 25	Precipitation Reactions (Sections 4.6)
October 30	Acid–Base Reactions (Section 4.8)
November 1	Oxidation–Reduction Reactions (Section 4.9)
November 6	Exam 3
November 8	Graphs (Appendix I.D)
November 13	Simple Gas Laws (Sections 5.2–5.3)
November 15	The Ideal Gas Law (Sections 5.4–5.5)
November 20	Gas Mixtures and Stoichiometry (Sections 5.6–5.7)
November 22	<i>No Class</i>
November 27	Energy (Sections 1.5, 6.2–6.3)
November 29	Heat (Sections 6.4–6.5, 6.7)
December 4	Exam 4
December 6	Review
December 11	Final Exam (11:00 AM – 1:00 PM)

Additional Resources: The Academic Center for Excellence (ACE, <http://www.ut.edu/ace/>) in the Academic Success Center offers tutoring in several subjects, including chemistry. This is available at no charge above your tuition.

Disclosures: The University of Tampa syllabus disclosures may be found on this course's Blackboard site.