CHE 128 Introductory Chemistry

Section A — MW 8:30 – 9:45 AM — Southard Family Building 287

Instructor: Dr. Matthew Wilson

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Office Hours: Dr. Wilson will be available Mondays 10:00 AM – 12:00 PM, Wednesdays 10:00 – 11:00 AM, Thursdays 11:00 AM – 1:00 PM, 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, 5th ed. and a 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, worksheets, 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 Mastering Chemistry 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. 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:

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:

August 26	Introduction and Math Review (Appendix I.A)
August 28	Measurements (Sections 1.6–1.7)
September 2	*No Class*
September 4	Dimensional Analysis (Section 1.8)
September 9	Matter (Sections 1.1, 1.3–1.4, 2.3)
September 11	Atoms (Sections 2.4–2.6)
September 16	The Periodic Table (Sections 2.6–2.8)
September 18	The Mole (Section 2.9)
September 23	**Exam 1**
September 25	Compounds (Sections 3.2–3.4, 3.8)
September 30	Composition of Compounds (Sections 3.9–3.10)
October 2	Ionic Compounds (Section 3.5)
October 7	Molecular Compounds (Section 3.6)
October 9	Solutions (Sections 5.2, 5.4)
October 14	**Exam 2**
October 16	Chemical Equations (Sections 4.2, 5.6)
October 21	Stoichiometry (Sections 4.3–4.4, 5.3)
October 23	Precipitation Reactions (Sections 5.4–5.5)
October 28	Acid–Base Reactions (Section 5.7)
October 30	Oxidation–Reduction Reactions (Section 5.9)
November 4	**Exam 3**
November 6	Graphs (Appendix I.D)
November 11	Simple Gas Laws (Sections 6.2–6.3)
November 13	The Ideal Gas Law (Sections 6.4–6.5)
November 18	Gas Mixtures and Stoichiometry (Sections 6.6–6.7)
November 20	Energy (Sections 1.5, 7.2–7.3)
November 25	Heat (Sections 7.4–7.5, 7.7)
November 27	*No Class*
December 2	**Exam 4**
December 4	Final Exam Review
December 9	**Final Exam** (8:30 – 10:30 AM)

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.