

## CHE 128 Introductory Chemistry

### Section H — TR 2:00 – 3:15 PM — East Walker Hall 110

**Instructor:** Dr. Matthew Wilson

**Office:** SC 239

**Email:** mwilson@ut.edu

**Phone:** 257-3128

**Office Hours:** Dr. Wilson will be available 11:00 AM – 12:00 PM Monday through Friday, 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 2e* by OpenStax (available at <https://openstax.org/details/books/chemistry-2e>), Chem101 (available at <https://101edu.co>), 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 Chem101 learning platform will be used in conjunction with this course. Homework assignments are graded for correctness, with the opportunity to earn partial credit if multiple attempts are needed; practice assignments are not required and not graded. No credit will be given for late submissions. While there are more than 120 points offered across all of the homework assignments, the maximum number of course points that can be earned on the 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:

January 21	Introduction and Math Review (Appendix B.1)
January 23	Units of Measurement (Section 1.4)
January 28	Certainty in Measurements (Section 1.5)
January 30	Dimensional Analysis (Section 1.6)
February 4	Matter (Sections 1.2–1.3, 2.1)
February 6	Atoms (Sections 2.2–2.3)
February 11	The Periodic Table (Sections 2.5–2.6)
February 13	The Mole (Section 3.1)
February 18	<b>Exam 1</b>
February 20	Compounds (Sections 2.4, 2.6, 3.1)
February 25	Composition of Compounds (Section 3.2)
February 27	Ionic Compounds (Sections 2.6–2.7)
March 3	Molecular Compounds (Section 2.7)
March 5	Solutions (Section 3.3)
March 10	<i>No Class</i>
March 12	<i>No Class</i>
March 17	<b>Exam 2</b>
March 19	Chemical Equations (Section 4.1)
March 24	Stoichiometry (Sections 4.3–4.4)
March 26	Precipitation Reactions (Section 4.2)
March 31	Acid–Base Reactions (Sections 4.2, 4.5)
April 2	Oxidation–Reduction Reactions (Section 4.2)
April 7	<b>Exam 3</b>
April 9	Simple Gas Laws (Sections 9.1–9.2)
April 14	The Ideal Gas Law (Sections 9.2–9.3)
April 16	Gas Mixtures and Stoichiometry (Section 9.3)
April 21	Energy (Section 5.1)
April 23	Heat (Sections 5.2)
April 28	<b>Exam 4</b>
April 30	Review
May 7	<b>Final Exam</b> (1:30 – 3:30 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.