

## CHE 128 Introductory Chemistry

### Section B — TR 8:30 – 9:50 AM — Lecture Hall A

**Instructor:** Dr. Matthew Wilson

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**Office Hours:** Dr. Wilson will be available 10:00 – 11:15 AM 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. Satisfies general curriculum distribution requirements. Lecture only. For CNHS majors only.

#### Learning Objectives:

- Understand how intermolecular forces affect the physical properties of substances.
- Learn how reaction kinetics relates to reaction mechanism.
- Apply the concept of thermodynamic equilibrium to chemical reactions.
- Understand the thermodynamic parameters enthalpy, entropy, and Gibbs free energy.
- Understand how electrochemistry relates to redox reactions.
- Apply nuclear chemistry to understand radioactivity.

**Required Materials:** *Introductory Chemistry Essentials*, 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, 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. Each chapter will have multiple associated assignments: “Tutorials”, “Practice”, and “Graded”. The “Tutorials” assignments are a collection of tutorial problems and the “Practice” assignments are additional problems, neither of which are required assignments and not graded. The “Graded” assignment problems are graded for correctness, with the opportunity to earn partial credit if multiple attempts are needed. No credit will be given for late submissions. The maximum number of course points that can be earned from homework is 100 points.

**Exams:** Each exam will be worth 200 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 grade on the final exam; no make-up exams will be given. An unexcused absence from an exam will result in a grade of zero on the exam. 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. The final exam will be comprehensive.

**Grades:** A total of 900 points are possible in the course. Letter grades will be assigned as follows:

|    |                  |               |
|----|------------------|---------------|
| A  | 900 – 810 points | 100.0 – 90.0% |
| AB | 809 – 765 points | 89.9 – 85.0%  |
| B  | 764 – 720 points | 84.9 – 80.0%  |
| BC | 719 – 675 points | 79.9 – 75.0%  |
| C  | 674 – 630 points | 74.9 – 70.0%  |
| D  | 629 – 540 points | 69.9 – 60.0%  |
| F  | 539 – 0 points   | 59.9 – 0.0%   |

**Academic Dishonesty:** Cheating in any form will not be tolerated. Students caught violating any aspect of the University of Tampa’s Academic Integrity Policy will be penalized in all cases. Penalty ranges from “0” on an assignment to “F” for the course without regard to a student’s accumulated points. Students may also face expulsion. It is the student’s responsibility to become familiar with the policies of the university regarding academic integrity and to avoid violating such policies.

**Office of Student Disability Services:** If there is any student who has special needs because of a disability, please go directly to the Academic Success Center in North Walker Hall. You may phone 813-258-5757, or e-mail [jlaw@ut.edu](mailto:jlaw@ut.edu) to report your needs and provide documentation of your disability for certification. Janice Law is the director of the Academic Excellence Programs that includes Student Disability Services. Please feel free to discuss this issue in private if you need more information.

**Disruption Policy:** The professor believes that every student has the right to a comfortable learning environment where the open and honest exchange of ideas may freely occur. Each student is expected to do his or her part to ensure that the classroom (and anywhere else the class may meet) remains conducive to learning. According to the terms of the University of Tampa Disruption Policy, the professor will take immediate action when inappropriate behavior.

**Course Interruption Due To Adverse Conditions:** In case of any adverse condition or situation which could interrupt the schedule of classes, each student is asked to access [www.ut.edu](http://www.ut.edu) for information about the status of the campus and class meetings. In addition, please refer to [ut.blackboard.edu](http://ut.blackboard.edu) for announcements and other important information. You are responsible for accessing this information.

**Syllabus Modifications:** The professor reserves the right to make changes to this syllabus as necessary.

**Schedule:** The following is a tentative schedule of topics to be covered and exam dates:

|              |   |
|--------------|---|
| August 26    | The Chemical World (Ch. 1)                          |
| August 28    | Measurement and Problem Solving (Ch. 2)             |
| September 2  | Matter and Energy (Ch. 3)                           |
| September 4  | Matter and Energy (Ch. 3)                           |
| September 9  | Atoms and Elements (Ch. 4)                          |
| September 11 | Atoms and Elements (Ch. 4)                          |
| September 16 | Review  |
| September 18 | <b>Exam 1</b>                                       |
| September 23 | Molecules and Compounds (Ch. 5)                     |
| September 25 | Chemical Composition (Ch. 6)                        |
| September 30 | Chemical Reactions (Ch. 7)                          |
| October 2    | Chemical Reactions (Ch. 7)                          |
| October 7    | Quantities in Chemical Reactions (Ch. 8)            |
| October 9    | Quantities in Chemical Reactions (Ch. 8)            |
| October 14   | Review  |
| October 16   | <b>Exam 2</b>                                       |
| October 21   | Gases (Ch. 11)                                      |
| October 23   | Liquids, Solids, and Intermolecular Forces (Ch. 12) |
| October 28   | Solutions (Ch. 13)                                  |
| October 30   | Solutions (Ch. 13)                                  |
| November 4   | Acids and Bases (Ch. 14)                            |
| November 6   | Acids and Bases (Ch. 14)                            |
| November 11  | Review  |
| November 13  | <b>Exam 3</b>                                       |
| November 18  | Chemical Equilibrium (Ch. 15)                       |
| November 20  | Chemical Equilibrium (Ch. 15)                       |
| November 25  | Oxidation and Reduction (Ch. 16)                    |
| November 27  | <i>No Class</i>                                     |
| December 2   | Oxidation and Reduction (Ch. 16)                    |
| December 4   | Review  |
| December 11  | <b>Final Exam</b> (8:30 – 10:30 AM)                 |