CHEMISTRY 102B/102E
ASSIGNMENTS

WEEK 1
(August 23-26)

**Lecture: Tuesday**

Topics: Introduction, Classification of Matter, Significant Figures

Reading: Zumdahl*, Chapter 1.1-1.2, 1.5, 1.9, Appendix A1.1,
Course Policy (accessed on our Chem 102B/102E website)

Problems: Zumdahl, Chapter 1: 19, 21, 28, 31, 33, 73, 75, 77, 79-81, 91

Review Questions: Zumdahl, Chapter 1: 1, 9

**Lecture: Thursday**

Topics: Measurements - Units, Significant Figures, Dimensional Analysis, Density, Dalton’s Atomic Theory

Reading: Zumdahl, Chapter 1.3-1.6, 1.8; 2.1-2.4

Problems: Zumdahl, Chapter 1: 23-25, 35, 36, 37(a,b,e,f), 41, 42, 49-52, 63-66, 71, 87, 98, 99

Chapter 2: 20, 33

Review Questions: Zumdahl, Chapter 1: 4-7

Chapter 2: 1(a,b)

**WEEK 2
(August 30-September 2)**

**Lecture: Tuesday**

Topics: Subatomic Particles, Isotopes, Nomenclature, Periodic Table

Reading: Zumdahl, Chapter 2.4-2.8


Review Questions: Zumdahl, Chapter 2: 4-10

**Lecture: Thursday**


Reading: Zumdahl, Chapter 3.1-3.5, 3.8-3.9; Handouts Book, p. 35

Problems: Zumdahl, Chapter 3: 25, 33, 35, 41, 42, 61, 63, 71, 89, 90, 95, 96, 119, 121, 131, 138

Zumdahl, Chapter 6: 41, 43(a,b)

Review Questions: Zumdahl, Chapter 3: 1-4

*Chemistry by Zumdahl & Zumdahl (Eighth Edition)*
### WEEK 3
(September 6-9)

**Lecture: Tuesday**
Topics: Electromagnetic Radiation, Atomic Spectra, The Bohr Model, The Quantum Mechanical Model

Reading: Zumdahl, Chapter 7.1-7.5
Problems: Zumdahl, Chapter 7: 20, 23, 32, 41-44, 53, 55, 60, 61, 63, 137-139
Review Questions: Zumdahl, Chapter 7: 1-3

**Lecture: Thursday**
Topics: Orbitals and Electronic Structure, The Periodic Table

Reading: Zumdahl, Chapter 7.7-7.11
Problems: Zumdahl, Chapter 7: 26, 33, 68, 72, 74, 77, 78, 81, 83, 85, 87, 92-96, 124, 126
Chapter 8: 44
Handouts Book, p. 54: Problems at the bottom of the page
Review Questions: Zumdahl, Chapter 7: 6-8

### WEEK 4
(September 13-16)

**Lecture: Tuesday**
Topics: Periodic Properties

Reading: Zumdahl, Chapter 7.12-7.13, 8.4
Chapter 8: 21, 39, 49-51, 129
Review Questions: Zumdahl, Chapter 7: 9, 10
Chapter 8: 2

**Lecture: Thursday**
Topics: Introduction to Bonding, Lewis Structures, Nonoctets, Resonance

Reading: Zumdahl, Chapter 8.1-8.3, 8.9-8.12
Problems: Zumdahl, Chapter 8: 15-17, 19, 24, 27, 33-35, 37, 38, 41, 46, 79-89, 92, 93, 133, 136
Handouts Book, p. 61: Complete the Lewis structures for the organic compounds listed on the bottom of this page.
Review Questions: Zumdahl, Chapter 8: 1, 5, 6
WEEK 5
(September 20-23)

Lecture: Tuesday  
Topics: VSEPR, Polarity
Reading: Zumdahl, Chapter 8.2, 8.3, 8.13
Problems: Zumdahl, Chapter 8: 20, 26, 105-115, 117-120, 127, 151
Review Questions: Zumdahl, Chapter 8: 8-10

Discussion: Wednesday

Lecture: Thursday  
Topics: Hybrid Orbitals, Delocalization
Reading: Zumdahl, Chapter 9.1, 9.5
Problems: Zumdahl, Chapter 9: 6, 9, 11, 12, 16-22, 27, 28, 31, 57, 59, 61, 64, 79
Review Questions: Zumdahl, Chapter 9: 1-4, 10

Discussion: Friday

WEEK 6
(September 27-30)

Lecture: Tuesday  
Topics: Catch-up and Review for Hour Exam I

Discussion: Wednesday

Hour Exam I: 7:00 p.m. Wednesday, September 28 (location to be announced.)

Lecture: Thursday  
Topics: States of Matter, Intermolecular Forces and Physical Properties
Reading: Zumdahl, Chapter 10.1-10.2, 10.8 (vapor pressure discussion only)
Problems: Zumdahl, Chapter 10: 5, 10-14, 21, 25, 33, 35-39, 117, 128
Review Questions: Zumdahl, Chapter 10: 1

Discussion: Friday