

CHEMISTRY 116 - Fall 2021
Dr. Audrey Dell Hammerich
6 - Week of September 26
Lewis Structures and VSEPR II, Gases I

NOTE: Quiz in discussion on Friday on material since exam. Since a number of you are experiencing difficulties with ChemDoodle it will not be used in any quizzes or exams.

NOTE: Omit the section on hyperconjugation on p. 534 of Z Ch 13.12.

NOTE: As with all of the introductory chemistry courses this course requires that you perform and submit a lab report for a minimum of 10 of the 12 labs. Lab reports not submitted receive a grade of a zero. Except under very extraordinary conditions one cannot pass this course if they are missing more than two labs or lab reports.

NOTE: To encourage you to keep up with the work and receive appropriate credit we are accepting late lab reports (with some penalty points). We will accept one by the end of this week and another by the end of next week. Please avail yourself of these opportunities so your grade does not suffer.

LAB ASSIGNMENT: *Online Spectrophotometry Simulation/Activity* (H 18-1–18-4) The simulation gives no background into the fundamentals of spectrophotometry so the reading in Chapter 18 of the Harris text is imperative, especially with regards to Beer's law.

LECTURE ASSIGNMENT: Online OWL assigned homework due on Monday, October 4 at noon except "W" problems are due Friday, October 1 at noon.

Monday, September 27

Reading Assignment: Chapter Z 13.12 - 13.13 [Lewis structure and VSEPR for more than four electron pairs about an atom; predict molecular shapes and bond angles and use VSEPR to predict the geometries of molecules with a steric number (number of electron pairs) of 5 and 6; **valence shell expansion** - two cases when it is used, know how to employ formal charge to determine if a VSE need be done]

Wednesday, September 29

Reading Assignment: Chapter Z 13.3 [be able to predict whether a molecule has a **dipole moment**; bond polarity; "bond dipole" using difference in electronegativity of bonded atoms; predicting bond angles using electronegativity of atoms in bonded pairs; go over last two questions in Chapter 13 lecture notes]

Friday, October 1

Reading Assignment: Z Chapter 5.1 - 5.3 [understand how a barometer and J-tube work, Boyle's law, Charles law, Avogadro's hypothesis]