

## CHEMISTRY 101 DETAILED WEEKLY TEXTBOOK HOMEWORK & READING SCHEDULE\*

\*Refer to textbook homework assignment and pre-lecture assignment for corresponding chapters to read.

Week 1	Week of January 20–23	Textbook Homework Assignment 1	Basic Skills Review (Videos Available on Course Website)
<b>Monday Lab</b>	MLK Jr. Day		
<b>Tuesday Lecture</b>	Course Intro (Chapter 2.6, 2.8)	(All are from Questions and Problems section.) <b>Chapter 2:</b> 89, 93, 102	Dimensional Analysis Density Optional: Significant Figures
<b>Wednesday</b>	No Class		
<b>Thursday Lecture</b>	States of Matter, Naming (Chapter 3.3 & 3.4 Chapter 4.8 & 4.10 Chapter 5.2, 5.3, 5.5)	<b>Chapter 3:</b> 15, 24, 31, 49 <b>Chapter 5:</b> 20–22, 42–46, 60	Elements, Molecules, Compounds, Mixtures Naming Ionic Compounds Naming Compounds Containing Nonmetals Naming Practice & Review
<b>Friday Discussion</b>	Course Intro and Orientation	*This week's textbook homework due in discussion.	

\*We expect certain topics from this Tuesday & Thursday's textbook homework to be familiar to you from high school chemistry—these will not be discussed in detail in lecture. These topics are:

- Chemical and physical changes (Textbook section 3.2)
- Dimensional analysis (Section 2.6)
- Density (Section 2.7)

If these are *not* review for you, please take time to read the textbook and to review the supplemental course lecture videos, if necessary. *You can still be successful in this class.*

Week 2	Week of January 28–31	Textbook Homework Assignment 2	Basic Skills Videos
<b>Monday Lab</b>	Workshop 1 – Naming, Compounds, Elements, Mixtures		
<b>Tuesday Lecture</b>	Introduction to the Mole (Chapter 8.2–8.5)	<b>Chapter 4:</b> 39, 42, 73, 78, 83 <b>Chapter 8:</b> Please complete parts a & b only for the following problems: 21, 29, 30, 31, 40, 41, 91 Also complete problem 114.	Protons, neutrons, electrons* Finding molar mass Grams to moles Moles to grams Counting Particles
<b>Wednesday</b>	Electronic Homework Assignment 1 Due		
<b>Thursday Lecture</b>	Empirical & Molecular Formula (Chapter 8.6–8.9)	Percent Composition: <b>Chapter 8:</b> 47 a & b only, 50 a & b only Empirical Formula: <b>Chapter 8:</b> 55, 56, 57, 59, 73 Molecular Formula: <b>Chapter 8:</b> 77, 81	Empirical & Molecular Formula Percent Composition
<b>Friday Discussion</b>	Week 2 Practice	*This week's textbook homework due in discussion.	

\*We will not cover determining the number of protons, neutrons, and electrons in an atom or ion during lecture. If this is *not* review for you, please review section 4.7 and 4.10 of your textbook and/or watch the corresponding video.

Week 3	Week of February 3–7	Textbook Homework Assignment 3	Basic Skills Videos
<b>Monday Lab</b>	Activity 1 – Aluminum Foil & Percent Mass		
<b>Tuesday Lecture</b>	Introduction to Gas Laws (Chapter 13.1, 13.8, 13.9)	<b>Chapter 13:</b> 78, 82	Explaining Gas Law Phenomena Kinetic Molecular Theory
<b>Wednesday</b>	Electronic Homework Assignment 2 Due		
<b>Thursday Lecture</b>	Quantitative Gas Laws (Chapter 13.3, 13.5, 13.7)	<b>Chapter 13:</b> 17, 31, 49, 51, 64	Deriving Relationships Using the Ideal Gas Law Ideal Gas Law
<b>Friday Discussion</b>	Week 3 Practice	*This week's textbook homework due in discussion.	

Week 4	Week of February 10–14	Textbook Homework Assignment 4	Basic Skills Videos
<b>Monday Lab</b>	Activity 2 – Explorations with Gases		
<b>Tuesday Lecture</b>	Dalton's Law of Partial Pressures (Chapter 13.6)	<b>Chapter 13:</b> 67, 71, 72	Dalton's Law of Partial Pressures
<b>Wednesday</b>	Electronic Homework Assignment 3 Due		
<b>Thursday Lecture</b>	Gas Law Applied Problems	<b>Chapter 13:</b> 105, 106, 128, 138, 145, 151	Problems that Combine Phenomena
<b>Friday Discussion</b>	Week 4 Practice	*This week's textbook homework due in discussion.	

Week 5	Week of February 17–21		Basic Skills Videos
<b>Monday Lab</b>	Exam 1 Review Questions	No textbook homework due this Friday!	Don't miss Exam 1!
<b>Tuesday Lecture</b>	Exam 1 Review		
<b>Wednesday</b>			
<b>Thursday Lecture</b>	Chemical Reactions (Chapter 6.1–6.2, 7.1)		
<b>Friday Discussion</b>	Exam 1 Passed Back Go over exam 1!		
			Balancing Equations Writing Equations in Formulas from Words

Week 6	Week of February 24–28	Textbook Homework Assignment 5	Basic Skills Videos
<b>Monday Lab</b>	Workshop 1 – Chemical Reactions		
<b>Tuesday Lecture</b>	Limiting Reactant 1 (Chapter 9.1–9.4)	<b>Chapter 9:</b> Please complete parts a & b only of the following problems: 5, 14, 16, 24 Also complete 29 & 35.	Mole-Mole and Mole-Mass Relationships Finding the Limiting Reactant Finding the Amount of Excess Reactant Leftover
<b>Wednesday</b>			
<b>Thursday Lecture</b>	Limiting Reactant 2 (Chapter 9.5)	<b>Chapter 9:</b> 45, 48 a & b, 90	
<b>Friday Discussion</b>	Limiting Reactant Practice	*This week's textbook homework due in discussion.	

Week 7	Week of March 2–6	Textbook Homework Assignment 6	Basic Skills Videos
<b>Monday Lab</b>	Activity 3 – Nuts and Bolts		
<b>Tuesday Lecture</b>	Precipitation Reactions (Chapter 7.1–7.2)	<b>Chapter 6:</b> 6, 13, 16, 18, 24, 40 a–e, 48, 52, 73 d–h, 76 <b>Chapter 7:</b> 11, 15, 18, 22,	Solubility Precipitation Reactions
<b>Wednesday</b>			
<b>Thursday Lecture</b>	Precipitation Reactions Part 2 (Chapter 7.3–7.4)	<b>Chapter 7:</b> 26, 40, 75	Molecular, Complete, and Net Ionic Equations
<b>Friday Discussion</b>	Precipitation Reactions Practice	*This week's textbook homework due in discussion.	

Week 8	Week of March 9–13	Textbook Homework Assignment 7	Basic Skills Videos
<b>Monday Lab</b>	Activity 4 – Precipitation Reactions		
<b>Tuesday Lecture</b>	Molarity (Chapter 15.2, 15.4, 15.5)	<b>Chapter 15:</b> 34, 35, 37, 49, 55, 59, 61	Solution Problems
<b>Wednesday</b>	Electronic Homework Assignment 4 Due		
<b>Thursday Lecture</b>	Concentration of Ions Problems (Chapter 15.6–15.7)	<b>Chapter 15:</b> 64, 65, 67, 70, 91	Ions in Solution Problems
<b>Friday Discussion</b>	Concentration of Ions Practice	*This week's textbook homework due in discussion.	

**Week 9 – Spring Break! No assignments!**

Week 10	Week of March 23–27	Textbook Homework Assignment 8	Basic Skills Videos
<b>Monday Lab</b>	Activity 5 – Limiting Reactants Virtual Lab		
<b>Tuesday Lecture</b>	Gas Stoichiometry (Chapter 13.1)	<b>Chapter 13:</b> 85, 87, 89	Gas Stoichiometry Problems
<b>Wednesday</b>	Electronic Homework Assignment 5 Due		
<b>Thursday Lecture</b>	Stoichiometry Workshop	None	
<b>Friday Discussion</b>	Stoichiometry Practice/Exam Review	*This week's textbook homework due in discussion.	

Week 11	Week of March 30–April 3		Basic Skills Videos
<b>Monday Lab</b>	Exam 2 Review Questions	No textbook homework due this Friday!	Don't miss Exam 2!
<b>Tuesday Lecture</b>	Exam 2		
<b>Wednesday</b>			
<b>Thursday Lecture</b>	Heat & Energy (Chapter 10.3)		Endothermic and Exothermic Processes
<b>Friday</b>	Exams 2 Passed Back, Go over Exam 2		Energy Diagrams

Week 12	Week of April 6–10	Textbook Homework Assignment 9	Basic Skills Videos
<b>Monday Lab</b>	Workshop 2 – Heat and Energy		
<b>Tuesday Lecture</b>	Atomic Theory, Electron Configuration (Chapter 11.6–11.10)	<b>Chapter 10:</b> 8, 11, 13, 14, 65 <b>Chapter 11:</b> 9, 16, 24, 26, 29, 47, 50, 51, 56, 61, 63, 95, 98	Atomic Structure History Orbitals Electron Configuration
<b>Wednesday</b>			
<b>Thursday Lecture</b>	Bonding and Periodic Trends (Chapter 11.1, 12.1–12.3)	<b>Chapter 11:</b> 73, 74 <b>Chapter 12:</b> 1, 7, 8, 11, 13, 19, 25, 33, 38, 43, 44, 48	Bonding Periodic Trends
<b>Friday Discussion</b>	Electron Configuration Practice, Trends Practice	*This week's textbook homework due in discussion.	

Week 13	Week of April 13–17	Textbook Homework Assignment 10	Basic Skills Videos
<b>Monday Lab</b>	Activity 6 – Atomic Theory		
<b>Tuesday Lecture</b>	Introduction to Molecular Structure (Ch. 12.4–12.7)	<b>Chapter 12:</b> 57, 59, 64, 65, 68	Lewis Structures
<b>Wednesday</b>	Electronic Homework Assignment 6 Due		
<b>Thursday Lecture</b>	Introduction to Shape & Polarity (Ch. 12.8–12.10)	<b>Chapter 12:</b> 78, 81, 86, 110, 116, 119	Shape & Polarity 1
<b>Friday</b>	Lewis Structures Practice	*This week's textbook homework due in discussion.	

Week 14	Week of April 20–24	Textbook Homework Assignment 11	Basic Skills Videos
<b>Monday</b>	Activity 7 – Models of Molecules 1		
<b>Tuesday</b>	Exceptions to the Octet Rule, Shape & Polarity (Chapter 12.7)	Start Workshop 3 Part 1 in Lab Manual	Lewis Structures Exceptions to the Octet Rule
<b>Wednesday</b>	Electronic Homework Assignment 7 Due		
<b>Thursday</b>	Shape & Polarity 2, Introduction to Intermolecular Forces (Chapter 14.1–14.4)	Start Textbook Homework Assignment 12	Shape & Polarity 2: Expanded Octets Intermolecular Forces
<b>Friday</b>	Finish Workshop 3 Parts 1 & 2	Workshop 3 Due Monday in Lab	

Week 15	Week of April 27–May 1	Textbook Homework Assignment 12 (Suggested)	Basic Skills Videos
<b>Monday</b>	Exam 3 Review Questions	*Have your TA check Workshop 3 Parts 1 & 2.	
<b>Tuesday</b>	Intermolecular Forces (Chapter 14.1–14.4)	(Suggested) <b>Chapter 14:</b> 8, 10, 21, 25, 27, 74, 75, 76, 77, 80	Intermolecular Forces
<b>Wednesday</b>	Electronic Homework Assignment 8 Due, Exam 3 Review Questions Due	No textbook homework due this week!	
<b>Thursday</b>	Exam 3		
<b>Friday</b>	No class		

Week 16	Week of May 4–8	Assignments
<b>Monday</b>	Exam 3 Passed Back, Go over Exam 3	No other assignments this week! Good luck on the final!
<b>Tuesday</b>	Review Lecture	
<b>Wednesday</b>		
<b>Thursday</b>	Reading Day	
<b>Friday</b>	Chem 101 Final Exam 7:00 PM	