

Chemistry

FALL				
	Reading Schedule	Lecture and Discussion Topics	Supplemental Assignments	At Home Labs
September 2	ON SITE	Course Description / Scientific Method		
3	1 - 12	Units of Measure - Converting Between Units		
8	12 - 21	Converting Between Unit Systems - Making Measurements		
10	21 - 30	Accuracy, Precision, Sig Figs - Using Sig Figs in Mathematical Problems		
15	31 - 36	Measuring Temperature - Experimentation and the Scientific Method		
16-21	37 - 43	Module 1 Review and Test Window		
22	44 - 54	Early Attempts to Understand Matter - Elements: The Basic Building Blocks of Matter		
24	54 - 62	Compounds - Abbreviating and Classifying Compounds		
29	63 - 69	Classifying Matter as Ionic or Covalent - Naming Compounds		
October 1	69 - 76	Classifying Matter		
2-7	77 - 83	Module 2 Review and Test Window		
8	ON SITE	Chemistry Experiments and Demonstrations TBA		
13	84-98	Atomic Structure - Atomic Structure in More Detail		
15	98-106	The Nature of Light - The Electromagnetic Spectrum		
20	107-117	The Relationship between Frequency and Energy - The Quantum Mechanical Model of the Atom		
22	117-123	Building Atoms in the Quantum Mechanical Model - Abbreviated Electron Configurations		
23-28	124-131	Module 3 Review and Test Window		
29	132-143	Electron Configuration and the Periodic Table - Lewis Structures for Ionic Compounds		
November 3	143-148	Handling the Exceptions in Ionic Compounds - Electronegativity: Another Periodic Property		
5	149-155	Atomic Radius: Another Periodic Property - Lewis Structures of Covalent Compounds		
10	156-162	More Complicated Lewis Structures - An Application of Lewis Structures		
11-16	163-171	Module 4 Review and Test Window		
17	172-184	Polyatomic Ions - Molecular Geometry: VSEPR Theory		
19	185-192	Nonpolar Covalent and Polar Covalent Bonds		
23-27		Thanksgiving Break - No Classes		
December 1	193-197	Nonpolar Covalent and Polar Covalent Molecules - The Practical Consequence of Whether or not a Molecule is Polar Covalent		
2-7	198-206	Module 5 Review and Test Window		
8		TBA		
10		TBA		
15		TBA		
17		TBA		
Fall Presentation Days	19			
Fall Q and A Days	18			
On Site Lab Days	2			
SPRING				
January 5	ON SITE	Chemistry Experiments and Demonstrations TBA		
7	207-213	Classifying Changes That Occur in Matter - Phase Changes		
12	214-220	The Kinetic Theory of Matter - Density		
14	221-231	Phase Changes in Water - Balancing Chemical Equations		
15-20	232-240	Module 6 Review and Test Window		
21	241-247	Three Basic Types of Chemical Reactions - Decomposition Reactions		
26	248-254	Formation Reactions - Incomplete Combustion Reactions		
28	254-268	Atomic Mass - Using the Mole Concept in Chemical Equations		
January 29 - February 3	269-275	Module 7 Review and Test Window		
4	276-281	Mole Relationships in Chemical Equations - Limiting Reactants and Excess Components		
9	282-286	Fully Analyzing Chemical Equations - Using Chemical Equations When the Limiting Reactant is Identified		
11	287-295	Volume Relationships for Gases in Chemical Equations - Mass Relationships in Chemical Equations		
16	295-303	Using Stoichiometry to Determine Chemical Formulas - More Complicated Experiments for Determining Chemical Formulas		
17-22	304-312	Module 8 Review and Test Window		
23	313-319	Acids and Bases - The Chemical Definitions of Acids and Bases		
25	319-330	The Behavior of Ionic Compounds in Aqueous Solutions - The Reactions between Acids and Covalent Bases		
March 2	330-340	Molarity - Acid-Base Titrations		
4	ON SITE	Chemistry Experiments and Demonstrations TBA		
5-10	341-348	Module 9 Review and Test Window		
11		FLEX DAY		
15-19		Spring Break - No Classes		
23	349-354	How Solutes Dissolve in Solvents		
25	355-364	Solubility - Applying Stoichiometry to Solutions		

30	365-373	Molality - Boiling-Point Elevation		
March 31 - April 5	374-381	Module 10 Review and Test Window		
6	382-386	The Definition of Pressure - Boyle's Law		
8	386-393	Charles's Law - The Combined Gas Law		
13	394-398	Ideal Gases - Vapor Pressure		
15	399-409	An Alternative Statement of Dalton's Law		
16-21	410-417	Module 11 Review and Test Window		
22		TBA		
27		TBA		
29		TBA		
May 4		TBA		
6		TBA		
11		TBA		
13	ON SITE	Chemistry Experiments and Demonstrations TBA		
Spring Presentation Days	20			
Spring Q and A Days	23			
On Site Lab Days	3			