

Department: Science

Course Title: Applied Chemistry

Course #: 522

DESCRIPTION OF COURSE:

Students will learn the fundamental principles of chemistry and their application to daily life. They will demonstrate their understanding through their participation in laboratory investigations, analysis, problem solving, and data interpretation. Achievement will be demonstrated through laboratory reports, homework, quizzes, tests and projects.

REQUIRED TOPICS OF STUDY	SUGGESTED INSTRUCTIONAL TIME	STANDARDS/ ASSESSMENT ANCHORS
<i>Safety</i>	<i>0.5-1 week</i>	3.7.10.A&B
<i>The Science of Chemistry</i>	<i>1.5-2 weeks</i>	3.3.12.A, 3.6.10.B, 3.6.12.B / S11.A.1.1, S11.A.1.1.5, S11.A.3.1, S11.A.3.1.1
<i>Matter and Energy</i>	<i>1.5-2 weeks</i>	3.8.12.D / S11.A.1.1, S11.A.1.1.4, S11.A.3.3. S11.A.3.3.3. S11.C.1.1, S11.C.1.1.2, S11.C.2.1, S11.C.2.2.3
<i>Atoms and Moles</i>	<i>1.5-2 weeks</i>	3.2.10.A&B, 3.2.12.B, 3.3.10.C, 3.7.10.A, 3.9.10.A / S11.A.1.1, S11.A.1.1.1, S11.A.1.1.4, S11.A.3.2, S11.A.3.2.2, S11.A.3.3, S11.A.3.3.2, S11.A.3.3.3, S11.C.1.1, S11.C.1.1.1,
<i>The Periodic Table</i>	<i>1.5-2 weeks</i>	3.2.12.A, 3.3.10.A, 3.7.10.C, 3.9.10.C, 3.2.10.A, 3.2.12.B, 3.8.12.C / S11.A.3.2, S11.A.3.2.3, S11.A.3.3, S11.A.3.3.1, S11.C.1.1, S11.C.1.1.4
<i>Ions and Ionic Compounds</i>	<i>1.5-2 weeks</i>	3.2.10.A, 3.2.10.A, 3.2.12.A, 3.3.10.A / S11.A.3.3, S11.A.3.3.1, S11.C.1.1, S11.C.1.1.3
<i>Covalent Compounds</i>	<i>1.5-2 weeks</i>	3.2.12.A, 3.8.10.C / S11.A.3.3, S11.A.3.3.1, S11.C.1.1, S11.C.1.1.3
<i>The Mole and Chemical Composition</i>	<i>1.5-2 weeks</i>	3.8.10.B / S11.A.1.1, S11.A.1.1.5, S11.A.3.2, S11.A.3.2.3
<i>Chemical Equations and Reactions</i>	<i>1.5-2 weeks</i>	3.2.12.A, 3.3.10.C / S11.A.1.1, S11.A.1.1.5, S11.A.1.3.2
<i>Stoichiometry</i>	<i>1.5-2 weeks</i>	3.9.12.C / S11.A.1.3, S11.A.1.3.1, S11.A.1.3.2
<i>Gas Laws</i>	<i>1.5-2 weeks</i>	3.8.10.B, 3.9.12. / S11.A.1.1, S11.A.1.1.1, S11.A.1.1.4, S11.A.1.3, S11.A.1.3.1, S11.A.3.1, S11.A.3.2.1, S11.C.1.1, S11.C.1.1.5

INSTRUCTIONAL RESOURCES:

Chemistry, 2006 Edition, Holt, Rinehart & Winston, Lab manuals, World of Chemistry Video Series