

Honors Chemistry

		Description of Average Weekly Outside Requirements	
<p>Main Topics (What main ideas/concepts are covered):</p> <p>This course will cover some of the fundamental concepts of chemistry such as:</p> <ul style="list-style-type: none"> • Matter and Change • Scientific Measurement • Atomic Structure • The Periodic Table • Chemical Names & Formulas • The Mole Concept • Chemical Composition • Chemical Reactions • Stoichiometry • The Behavior of Gases • Chemical Kinetics • Thermodynamics • Solutions • Acids & Bases 	<p>Rationale (Why a student should take this course):</p> <p>This course is designed to introduce the student to the fundamental concepts of chemistry as well as offer laboratory experiences that allow students to perform investigations which include the use of scientific inquiry, research, measurement and etc.</p>	<p>Reading (Text, document, etc.):</p> <ul style="list-style-type: none"> • Students will read from the textbook, approximately 4-7 pages at a time, between 2 and 3 times a week. 	<p>Written (Terms, questions, outlines, free response, etc.):</p> <ul style="list-style-type: none"> • Students will answer section review and end of chapter questions. • There will be periodic writing assignments explaining concepts in chemistry and events in the scientific community. • Tests and quizzes may include free response questions that require written responses.
<p>Grade Composition (How are grades determined):</p> <ul style="list-style-type: none"> • Tests • Quizzes • Lab Reports • Homework and Classwork 	<p>Skill Development (Skills developed in this course and how):</p> <p>This course will allow students to develop problem-solving and math skills by learning the steps that involved in making multi-step calculations. Also, the various science writings will help students with their writing skills which are essential in completing laboratory reports.</p>	<p>Sample Textbook Excerpt:</p> <p>“All atoms are composed of the same basic particles. Yet all atoms are not the same. Atoms of different elements have different numbers of protons. Atoms of the same element all have the same number of protons. <i>The atomic number (Z) of an element is the number of protons of each atom of that element.</i>”</p> <p>“The atomic radii of the d-block elements generally decrease across the periods. However, this decrease is less than that for the main-group elements because the electrons, added to the (n-1) d sublevel shield the outer electrons from the nucleus.”</p>	
<p>Required Skills (Skills necessary to be successful in this course):</p> <ul style="list-style-type: none"> • Reading/Comprehension • Algebra I • Problem-Solving Skills • Basic Writing Skills 			