**COURSE TITLE:** Honors (H) Chemistry

Level of Difficulty	Estimated Homework	Prerequisites
Very Difficult	60-90 minutes	District:
		B or better in Biology H or petition; B or better in Algebra 1,
		concurrent enrollment in Geometry H or higher
		Department Suggestion:
		Geometry H (at minimum concurrent enrollment)
		B- or better in Honors Biology and Algebra 1

## **Course Description:**

Chemistry is a rigorous course that takes a conceptual and mathematical approach to the study of matter and energy. Major topics studied first semester include the structure of matter and the arrangement of the periodic table, chemical bonding and reactions and gas laws. Second semester delves into applied chemistry topics such as organic chemistry, solutions, thermochemistry, electrochemistry, acids and bases, and nuclear chemistry.

The pacing of this class is very fast in comparison to CP Chemistry. This course covers additional units and goes more in-depth in the chemical processes and mathematical analysis. With a 90 minute period a new topic is covered every day resulting in a new unit every 1-2 weeks. Students are expected to be proactive in their learning and ask questions when help is needed. For example, homework keys are posted online. Students are expected to check their own work each night and it is their responsibility to ask for clarification as homework will not be reviewed in class the next day unless questions are asked.

The classroom environment is a combination of lecture, concept demonstrations, and laboratory experiments. Students will be expected to work collaboratively in groups in a laboratory setting several times per unit.

This course relies heavily on the use of algebraic expressions, graphical analysis, unit conversions, data interpretation, and word problems. Students will be expected to have a solid foundation in math (particularly algebra) that can then be applied to concepts in chemistry. **Success in previous math courses is the strongest indicator of chemistry readiness.** It is assumed students have mastered Algebra I skills, as well as unit conversions, as these are a key component to the course but will not be explicitly taught.

Homework in this class is estimated at 60 minutes as a nightly average. This is a very rough estimate for planning purposes. A student's ability level will affect actual study time needed to be successful in this class. Comprehensive lab reports will be assigned in this class that will require additional outside class time to complete. Common homework assignments include textbook reading, textbook problems, worksheets and lab reports.

## **Grading:**

The grading system is based on weighted percentages. Each assignment will have a point value within the weighted category. Assessments and labs are weighted more heavily than homework. Individual teachers may make modifications on the weighted percentages.

## Syllabus:

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## **Supplemental Information:**

This class is a prerequisite for students wishing to take IB Chemistry or IB Biology in their junior & senior year. Students must complete this class with a B- or better to advance to IB Chemistry or IB Biology 1 in the junior year.