Chemistry 12 Course Outline Fall 2025



Instructor: Ms. Carpio

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Course Curriculum:

BIG IDEA 1: Reactants must collide to react, and the reaction rate is dependent on the surrounding conditions.

Heterogeneous and homogenous reactions; collision theory; energy change during chemical reaction; reaction mechanism; catalysts.

BIG IDEA 2: Dynamic equilibrium can be shifted by changes to the surrounding conditions.

Dynamic nature of chemical equilibrium; Le Châtelier's principle and equilibrium shift; equilibrium constant.

BIG IDEA 3: Saturated solutions are systems in equilibrium.

Saturated solutions and solubility product

BIG IDEA 4: Acid or base strength depends on the degree of ion dissociation.

Relative strength of acids and bases in solution; water as an equilibrium system; weak acids and weak bases; titration; hydrolysis of ions in salt solutions; applications of acid-base reactions.

BIG IDEA 5: Oxidation and reduction are complementary processes that involve the gain or loss of electrons.

The oxidation-reduction process; electrochemical cells; electrolytic cells; quantitative relationships.

Course Materials:

Students must bring a 3-ring binder, vocabulary notebook, papers, pens, pencils, highlighters, and a digital file system to store and organize your work.

Workbook: Hebden Chemistry 12

Work & Assignment Policy:

Homework will be checked daily and will be graded according to the following: '0' Incomplete, copied, or completed after the chapter test; '0.5' Late or partially completed; '1 'All questions have been attempted, and most or all questions are complete.

Attendance Policy:

Students are expected to arrive at class on time and ready to engage. Tardiness and absence will naturally lead to less teacher and peer contact time, and a reduction in marks.

Honesty Policy:

Work will be assessed for authenticity. Dishonesty will result in consequences, including '0' marks or no credit.

Technology Policy:

All technology, including cell phones, will be used at the discretion of the teacher.

<u>Grading:</u>	Coursework		Value
	Participation		5%
	Exit ticket		5%
	Quizzes		20%
	Worksheets and Labs		20%
	Projects/Presentations		10%
	Unit Tests		20%
	Final Exam		20%
		Total	100%

^{*} Be on time; stay on-task; organize materials; join class and group discussions; contribute to group work.