

COURSE TITLE: IB Chemistry 1

Level of Difficulty	Estimated Homework	Prerequisites
Very Difficult	60-90 minutes	District: <u>B- or better in BioH and Chem H. B- or better in Algebra 2</u> Department Suggestion: B- or better in Honors Chemistry and Honors Biology AP Precalculus or higher (minimum concurrently)

Course Description:

IB Chemistry 1 is the first year in a two-year higher level (HL) course in chemistry. IB Chemistry 1 is required to continue into year 2 as there are a required number of lab hours mandated by IB.

In IB Chemistry 1, there is a heavy emphasis on conceptual learning, independent thinking, student investigation and inquiry skills, research, analysis, and application. Students will communicate their ability to apply, critique and revise their findings in several ways such as professional-level visual, written and oral communications. Several independent, in-depth lab reports will be submitted.

In IB Chemistry 1, students will revisit concepts learned in Honors Chemistry but will explore these concepts at a much greater level of depth. This course is designed to meet the curriculum requirements of the International Baccalaureate Program. This course incorporates recent scientific thinking and emphasizes opportunities for research and discovery as well as personal experience in the use of the scientific method. Students will further their content knowledge of chemistry in preparation for IB Chemistry HL 2. Units of study will include measurement and data processing, stoichiometric relationships, atomic structure, periodicity, chemical bonding and structure, energetics/thermochemistry, chemical kinetics and equilibrium.

Grading:

The grading system is based on a combination of formative and summative assessments. Homework is assigned for practice and reinforcement and therefore has a lower impact on the overall grade when compared to labs, quizzes and tests. There will also be heavily-weighted, cumulative end-of-term exams where students can demonstrate their level of mastery in a summative context. The course assessments will be designed to help students prepare to be successful on the IB Chemistry HL internal assessment (the individual investigation) and the May exam that they may choose to take in spring of senior year.

Syllabus:

This is the first year of a two-year IB Chemistry HL (Higher Level) course. For more detailed information, here is a link to the [IB Diploma Program Subject Brief for Chemistry](#).

Supplemental Information:

Students can only take the IB Chemistry exam after both IB Chemistry 1 and IB Chemistry 2.

During the course, students will work outside of class in groups of 3-5, composed of both IB Biology and IB Chemistry students, to conduct a joint exploration of a scientific topic.

Homework Estimate: This is a general guideline for planning and scheduling purposes. A student's ability level may affect actual preparation time needed.