

Course Outline: IB Chemistry (HL)

Course Text: Petrucci and Harwood “General Chemistry”

Grade weightings:	Knowledge/Understanding	= 25%
	Thinking/Inquiry	= 20%
	Communication	= 10%
	Making Connections	= 15%
	Summative	= 30%

IB HL Chemistry Syllabus:

IB Topic Number	Title
1	Stoichiometry
2/12	Atomic Theory
3/13	Periodicity
4/14	Bonding
5	States of matter
6/15	Energetics
7/16	Kinetics
8/17	Equilibrium
9/18	Acids and Bases
10/19	Oxidation and Reduction
11/20	Organic Chemistry
IB HL Options (Grade 12)	
B	Medicine and Drugs
C	Human Biochemistry
D	Environmental Chemistry
E	Chemical Industries
F	Fuels and Energy
G	Modern Analytical Chemistry
H	Further Organic Chemistry

In Grade 12, students will complete a Group 4 Project- an independent research project involving 10-15 hours of lab work.

Lab Reports and IB Internal Assessment

All IB students must submit a portfolio of lab reports as part of the assessment for their final IB chemistry grade. This portfolio is worth 24% of the total grade. Thus, it is very important that the portfolio is up to date and well organized. The assessment criteria are as follows:

Criterion	Aspects
Planning (a)	Defining research question; formulating hypothesis; selecting variables.
Planning (b)	Selecting materials; designing methods for control of variables and collection of data.
Data Collection	Collection, recording, organizing and presenting raw data.
Data Processing and Presentation	Processing and presenting the data.
Conclusion and Evaluation	Drawing conclusions, evaluating procedure, suggesting improvements.
Manipulative Skills (Summative)	Carrying out a range of experimental techniques competently and safely.
Personal Skills (a) (Summative)	Team Work
Personal Skills (b) (Summative)	Working with self-motivation, perseverance, and ethical and environmental considerations.

For each criterion, a level of 0-3 is awarded, based on the IBO's own rubrics and "achievement level matrices" (these will be provided to students separately). The final IB grade for the lab portfolio is based on the two best performances achieved for each criterion during the course.

Note: not all lab reports will be assessed for all IB criteria

IB External Examination Format

Component	Format	Duration (hrs)	Weightings (%)
Paper 1	40 multiple choice questions about Topics 1-20	1	20%
Paper 2	<u>Section A:</u> Data-based question and several short answer questions about Topics 1-20 <u>Section B:</u> Two (from four) extended answer questions about Topics 1-20	2.25	36%
Paper 3	Several short answer question and one extended answer question about each of two of the Options B - H	1.25	20%

