# IB Higher Level Chemistry Course of Study

**Course Guidelines:** IB Chemistry, April 2001

(Satisfies Ontario Ministry Guideline: Science intermediate

and Senior Divisions 1987, Part 13)

Course Code: IB Chemistry - Higher Level

(Incorporates SCHOA and SSOOA2)

**Level of Difficulty:** Enriched

Credit Value: 2.0

**Prerequisite:** SCH 3AE

**Suggested prerequisite: MAT 4A** 

# **Objectives of the Course:**

This course is based on the International Baccalaureate Chemistry Prospectus (April 2001).

#### From the Prospectus:

Chemistry is the central science. Chemical principles underpin the physical environment in which we live, and all biological systems. As such the subject of chemistry has two main roles in the curriculum. It is a subject worthy of study in its own right as a preparation for employment or further study. Chemistry is also a prerequisite for many other courses in higher education, such as medicine, and biological and environmental sciences.

Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. The chemistry programme aims to balance the needs of an examination syllabus on one hand with the freedom of teachers to devise courses which meet the needs of their students on the other. The programme reflects, through the variety of options available, the need to ensure that the qualification will meet the needs of students who wish to enter higher education in the sciences and those for whom this will be their final formal study of science.

This is a two year program designed for students who plan to write the Higher IB Chemistry exam. Students are awarded the SCHOA credit upon successful completion of the SCHOAE (IB, Higher, Year I) course requirements. Students are awarded the SSOOA2 credit upon successful completion of the SSOOA2 (IB, Higher, Year II) course requirements. Students are awarded the IB Diploma upon successful completion of IB external evaluations and practical work as 24 % of the total mark, with the IB external evaluation making up the remaining 76 %.

### **UNITS OF STUDY**

# IB Year I: SCHOAE September 2001 - June 2002

Start -Up and Review
Molecular Architecture (Bonding)
Energetics and Kinetics
Equilibrium
Equilibrium Applications (Acid-Base)
Oxidation and Reduction

IB Year II: SSOOA2 September 2002 - May 2003

Start - Up and Review
Organic Chemistry I
Organic Chemistry II
Organic Option
Fuels and Energy Option
Group IV Project
Course Consolidation and Exam Review

### **OSSD** Evaluation

The OSSD Credits (SCHOAE AND SSOOA2) will be evaluated according to the following scheme:

26 % Tests

24 % Lab Work (lab reports, preparation, performance and quizzes)

10 % Class work (assignments, quizzes, participation, group work)

10 % Independent Study ( 5 % from Organic Option, and 5 % from Group IV Project)

30 % Examination

Text Book: General Chemistry, Petrucci and Harwood, Prentice Hall, 1997.

# **EVALUATION POLICY**OSSD REQUIREMENTS

# **Evaluation Policy**

- 1. Any student **missing a quiz** for a legitimate reason shall be given an absent (pro-rate). For a legitimate absence, the student must provide a **note**, signed by a parent or guardian, detailing the reason for the absence.
- 1. All tests must be written on the scheduled day unless prior arrangements have been made with the teacher. A student missing a test for a legitimate reason will be given a make-up test at a time and date set by the teacher. It is the responsibility of the student to provide a note (signed by a parent or guardian) of explanation. Failure to do so shall result in a mark of **zero** being assigned.

A student who **misses a laboratory period**, must, at the discretion of the teacher:

- a) do the lab at a designated time and then write a lab report, or
- b) obtain the results from other students and write notes, or
- c) discuss the lab with other students and make notes.

Upon a successful discussion with the teacher, the assigned **NHI** (=0) will be changed to a pro-rate grade - **ABS**.

Late assignments, projects, etc. will be subject to a 20 % penalty. After the assignment has been returned to the class a mark of **zero** will be applied.

It is the **responsibility of the student** to catch up on missed work.

Students writing the final examination because of administration involvement (15 day rule) will have the final examination count on a 50 % basis.