# IBHL I & II Chemistry

2016-2017

Instructor: Ms. Jess Milhollan

Best way to contact me - email: jessica.milhollan@asd20.org

Best place to find Ms. Milhollan – Room 204 (or 205)

Website – www.marvelousmsmscience.weebly.com (also linked from my RHS site)

Textbook: Brown, Catrin and Mike Ford. Pearson Baccalaureate Chemistry Higher Level 2nd ed.

## **COURSE INFORMATION**

- ✓ This course is designed to be the equivalent of the general chemistry course usually taken during the first college year. As a college course, college level work will be expected from students including a minimum of 30 min per night of studying.
- ✓ Students in this course will build on the fundamentals of chemistry learned in their first year and enhance their problem solving skills through class work and frequent labs. An emphasis will be placed on chemical calculations and the mathematical formulation of principles in addition to extensive connections between the various chemistry topics.

#### **Course and Exam Outline:**

- ✓ Please review the course syllabus which details the information covered. Each unit of study will last approximately three to four weeks, allowing for a few weeks devoted to reviewing prior to the IB exams.
- ✓ The IB Exam:
- ✓ For those who plan to use Chemistry toward their IB diploma, the following criteria will be met:
- ✓ -Internal Assessment (20% of total score): The internal assessment is based upon your lab work and Group IV project. These are scored by your teacher(s) and will be submitted in early April of your second year. All lab reports will be submitted to TurnItIn.com for grading and storage.
- ✓ **-External Assessment** (80% of total score): The external assessment is an exam administered in early May. There are three portions completed over two days: Paper 1 consists of multiple choice questions, Paper 2 consists of data based, essay/short answer on all core topics (not options), and Paper 3 consists of 2 parts: Part A contains data and lab-based questions, Part B consists of essay/short answer on the option (addition topic).
- ✓ During **Year Two**, you will need to decide which level of exam you will be taking. While the standard level (SL) exam covers far less material, many colleges will not give credit for the simpler test.

# **CLASSROOM BASICS**

## **General Class Expectations:**

- 1. Be RESPECTFUL...of your fellow students, teacher, and classroom supplies.
- 2. Be ON TIME...tardiness will not be tolerated (see below).
- 3. Be PREPARED...bring all the necessary materials and come ready to learn!
- 4. Be FOCUSED...your time in this classroom is for learning chemistry, not doing your math or English homework.
- 5. PARTICIPATE!

#### Attendance:

- ✓ It will be in your best interest to make attendance a priority. If you must be absent, please check with your instructor as soon as possible upon returning to find out what you missed. You have the normal time set by the school for make-up work after an EXCUSED absence.
- ✓ School activities (sporting events, leadership activities, field trips, etc.) are planned in advance and therefore you will be expected to communicate your needs for assignments and notes in advance. Any work due during your absence must be turned in either prior to the absence or immediately upon return.



## Plagiarism/Cheating:

- ✓ Any intentional use of another's ideas, words, or work as one's own qualifies as plagiarism. This includes the misuse of published material or the work of other students.
- ✓ If plagiarism or any other form of cheating is detected, on the first offense the student will receive an automatic zero on the assignment or assessment and the incident will be reported to the IB office. Upon the any future offenses, the student will be referred to the discipline office and the incident will be reported to the IB office.

#### **Class Materials:**

- ✓ Please bring the following items to class on a daily basis
- ✓ **Textbooks** can be left at home unless otherwise stated in class or on the website
  - 1. A 3-ring binder (1.5" or larger) with paper (can be a spiral notebook or loose-leaf)
  - 2. A calculator with scientific functions (or graphing)
  - 3. At least 1 **pencil** with an eraser (chemistry often requires a lot of erasing and starting over)
  - 4. At least 1 marker/colored pen for grading and a few highlighters are always good.
  - 5. A calendar/planner to document important dates, due dates, etc.
- ✓ Electronic devices other than calculators and computers/tablets for taking notes (i.e. cell phones) are **NOT** allowed to be used in classroom unless I have given approval during student work time.

## **Self-practice:**

- ✓ You will be responsible for a large amount of self-practice. Please allow yourself enough time to complete these assignments. YOU MUST SHOW WORK ON ALL PROBLEMS. It is important to understand that working in a group, where you merely copy the work and answers without ensuring comprehension will do no good.
- ✓ Late assignments will only be accepted **before the unit test.** Exception: Book notes and exercises will NOT be accepted late. If you are absent the day homework is due, it must be turned in on your first day back or scan and email it to me! If you cannot solve a problem, show the effort made before giving up.

#### Labs:

✓ Safety is our primary concern in the lab. Any unsafe behavior will result in removal from the lab. Be familiar with the current lab prior to entering it. The pre-labs are very important, required, and will always aid you in your preparation. Some labs will be scored using the official IB rubric (IA).

## **Exams/Ouizzes:**

- ✓ No retakes are available for exams.
- ✓ Quizzes will be short assessments to check your understanding of the material before you are tested on it. Use these as opportunities to determine your strengths and weaknesses with the content.
- ✓ Quizzes are formative assessments and one retake per quiz is possible. Be aware that only the SECOND score will be taken regardless of improvement of score.
- ✓ Quiz retakes must be completed within 1 week of the posted initial quiz score.

## **Help Sessions:**

✓ Ms. Milhollan is available before school (arriving around 6:30am), during second lunch, and after school until ~4 pm. If possible, please come prepared with specific practice problems from your packet or text, and specific questions. This makes it much more useful to you.

#### **Grading:**

✓ Students will receive semester grades based on their scores in the following categories:

Semester in Progress (70%) - Semester Exam (30%)

Self-Practice: 20% Labs: 30% Quizzes 20% Tests 30%

## **COURSE OUTLINE**

This is an *approximate* outline of the schedule for this course, including the chapters we will be covering. Please use the website for announcements and additional information in the "Daily Calendar" section. Highlight your current section for this year!

# **HL I Chemistry:**

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Week	Chapter	Topics			
1		Introduction to IB Chemistry			
2 – 5	1.1-1.2	Quantitative Chemistry, Part 1: States of Matter and The Mole			
5 – 6	1.3	Quantitative Chemistry, Part 2: Stoichiometry and Gas Laws			
6 – 9	11.1-11.2	Measurement and Data Processing			
10 – 13	2/12	Atomic Theory			
14 – 16	3	Periodicity			
17		Semester 1 Review			
Winter Break					
1 – 4	4	Chemical Bonding and Structure: Ionic & Covalent Bonding			
4 – 7	14	Chemical Bonding and Structure: More Covalent & Hybridization			
8 – 11	10.1	Organic Molecules			
11 – 16	10.2-20.3	Organic Reactions			
17	11.3/21.1	Spectra Analysis			
17 – 20	D (chapter 15)	Option D: Medicinal Chemistry			
20 – 21		Review All for Cumulative Exam (depends on last day of class)			

## **HL II Chemistry:**

Week	Chapter	Topics		
1	1-4, 10, 11	Review of HL1 material		
2 – 5	5/15	Energetics and Thermochemistry		
5 – 8	6/16	Chemical Kinetics		
8 – 12	7/17	Equilibrium		
12 – 15	8/18	Acids and Bases		
16-17		Semester 1 Review		
Winter Break				
1 – 5	9/19	REDOX Processes (Electrochemical cells)		
5 – 8		IA		
9-18		Exam Prep		

Detach Here and	Return	
We have read and agree to abide by the class policies stated	d above.	
Student Name (please print):		
Student Signature:	Date:	
Parent Signature:	Date:	

Additional Questions I would like answered (with contact information):