

## Course Outline for IB Biology HL at CRHS

Cellular Processes, Photosynthesis, Respiration, and Ecology are just a few of the topics that will be covered in the first year of IB Biology HL. The expectation for students who choose to take this class is a passing score on the exit exam written in May of the senior year. This will require an intense level of study and work on your part for the next two years, particularly during the spring of your senior year. The onus is on you, the student, to take charge of your own learning!

IB has many requirements for its students and the requirements are different for each of the IB disciplines. In Biology, one of the Group 4 Experimental Sciences, each student is responsible for the successful completion of: learning the information as outlined in the IB Biology Syllabus, participating in the Group 4 Project, taking part in at least 60 hours of internal experimentation and completing corresponding lab write-ups for required internal assessments, and passing the external exam.

Biology is the study of life; its diversity and its interactions on Earth. To learn this subject, you will be required to take copious notes. You will also have many different diagrams to study and memorize and many of them are presented in a color-coding format. Each student will be assigned a textbook for use during the next two years. The textbook is the 10<sup>th</sup> edition of Mader's Biology. The cost of replacing this book is \$168.70 so care for this book as if it were your most precious belonging!

**Materials Needed:** 3 Ring Binder, dividers, paper, pencils, pens, coloured pencils, graph paper, Scientific calculator, 1 inch binder for lab portfolio, & 1 duo tang folder.

**Textbook:** Biology, 10<sup>th</sup> edition by Mader

**Course Evaluation:** Exams - 40 % (1 midterm and final exam each semester)  
Tests – 35% (2 per term)  
Labs, Assignments, homework – 25%

\*\*\*Late work will receive a 20% deduction per day to a maximum of 3 days.

### **IB Evaluation**

#### **External Assessment ( 76% of final mark)**

Consists of 3 different exams which are written in May of senior year.

Tips for exam success:

1. Practice, practice, practice.
2. Learn the IB Command Terms.
3. Review all sections of the syllabus well in advance of the exam and determine which sections you will need to spend more time on and plan your studying accordingly.
4. Repeat step # 1!!

## **Internal Assessments (24% of final mark)**

Internal Assessments will be assigned once a term and be graded according to the IBO mandated rubric for internal assessments. You will be given the due dates for each Internal Assessment well in advance; these dates are firm.

Biology HL students must complete 60 hours of practical work; this does NOT include write-up time! All write-ups must be kept in your lab binder in the classroom; some of which will be submitted to IBO moderators for assessment.

A variety of practical labs will be completed throughout the course; some will be used for learning the subject matter and laboratory skills while others will be assessed by IBO according to their assessment criteria. It is *THE STUDENT'S* responsibility to meet the required lab hours and to earn enough marks to satisfy the IBO's criteria. You will be required to propose, plan, and carry out some lab work on your own time. Write-ups for lab work will be due one week after the lab date and are expected to be completely finished regardless of the criterion being assessed. Lab details and hours logged will be recorded on your 4PSOW form. Lab write-ups **must be** individually done.

### **HL Assessment Specifications**

Internal Assessment (IA) (Graded by your instructor, and then some labs randomly graded externally). These are labs that are completed by students with minimal guidance.....**24% of IB Biology Grade**

**(48 points possible)**

1. You will complete at least 3-4 IA labs for this class. Dates will be posted well in advance when these IA's will occur...it's a big deal and trust me, you'll know when we're completing a lab to be graded "officially" as an IA.

2. Each, or part of each, lab will be graded in three areas: Design (D), Data collection and processing (DCP), and Conclusion and evaluation (CE). Each criterion can earn you a max of 6 points each. This is how many points you can earn per criterion:

**D (6 points) x 2 .....12 points possible**

**DCP (6 points) x 2.....12 points possible**

**CE (6 points) x 2.....12 points possible**

3. Due date for all IA Labs = February 15th, 2011!!

4. Manipulative Skills: You will be graded on this section at all times. Manipulative skills involve how well you follow directions, how competent you are in material, method and equipment usage, and how well you follow safety guidelines. Those students who are mature, confident, educated leaders score the highest in this category.....**6 points possible**

5. Group IV Project: This is an interdisciplinary project that pairs HL biology students with SL chemistry students. You will complete this project this school year. More info will follow. You are only graded on this assignment based on the IB Personal Skills rubric ....**6 points possible**

**Homework:** Will consist of readings, practice essays, pre-labs and post-lab write ups, IB data analysis questions, special assignments, and other projects/assignments as seen fit. Whereas the required reading overall workload may appear challenging, it is manageable. Reading should be done before class so that you will be able to better follow the lectures and be able to participate in class discussions.

**Technology requirements:** This course requires that all students utilize a computer to conduct research and to produce various products outside of class time. Therefore all students must have access to a computer and email account. Since the public libraries and school library/computer labs all have word processing software and internet access available, it is expected that all students without home computers make time in their schedules to frequent these computer labs.

**External Assessment**

This is completed by examination in May 2011. You will write three papers, all of which will be marked by an examiner who has never met you and knows nothing about you. Therefore, it is essential that your answers are clear and to the point. Pay close attention to the ‘Action Words’ in the question, and the number of points awarded for it. These will let you know exactly what the examiner is looking for. We will practice examination questions and techniques throughout the course.

External assessment counts towards 76% of your final mark!

**HL assessment specifications (Examinations- May 2011)**

Component	Overall Weighting (%)	Approximate weighting of objectives (%) 1 +2      3	Duration (hrs)	Format & Syllabus Coverage
Paper 1	20	20	1	40 multiple-choice questions (+/- 15 common to SL plus about five more on the core and about 20 more on the AHL)
Paper 2	36	18      18	2 ¼	<u>Section A:</u> one data-based question and several short-answer questions on the core and the AHL (all compulsory) <u>Section B:</u> two extended-response questions on the core and the AHL (from a choice of four)
Paper 3	20	10      10	1 ¼	Several short-answer questions and one extended-response question in each of the two options studied (all compulsory)

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