

Physics IB 12

Bruce Dalzell – Sydney Academy TEACHER COMMUNICATION PLAN – September 2009

OVERVIEW:

International Baccalaureate (IB) Physics is a two year program designed to prepare students for the IB assessments and Physics at the university level. This course is for those students who intend to complete the requirements for an IB Diploma or an IB Certificate in Physics.

SYLLABUS OUTLINE

For the IB Internal Assessment (May 2008) students are responsible for all Core topics and two Options.

In the Grade 12 year, the following topics will be covered. These correspond roughly to the Academic Physics 12 course.

- Topic 5: Electric currents
- Topic 6: Fields and forces
- Topic 7: Atomic and nuclear physics
- Topic 8.4: Non-fossil fuel power production
- Two Options

ASSESSMENT AND EVALUATION:

- ❖ **30%** **Major Tests**
 - Each topic will be tested using the same format as their IB Exam in May of 2010.
 - Paper One - Multiple Choice (Core topics)
 - Paper Two - Data-based questions, Short & Extended Response (Core Topics)
 - Paper Three - Short and Extended Response (Options only)
- ❖ **40%** **Labs, Assignments & Class Participation**
 - 15-25% Labs (Practical Work for Internal Assessment)
 - A minimum of 40 hours conducting investigations (labs) are required during the two year IB Physics program including between 10 and 15 hours for the Group 4 Project
 - Students should be aware of the aspects of each criterion and ensure that the expectations are met completely to achieve full value.
 - Completed lab write-ups are due the one cycle (8 class days) after the data collection is completed unless otherwise specified
 - Participation and contributions to Physics aspect of Group 4 Project will be included
 - At least one lab will be an independent lab for which most criteria will be assessed
 - 5-15% Pop Quiz and Homework
 - Homework will be assigned on a regular basis and is expected to be completed on time in order to succeed in this course.
 - Pop quizzes will be used to evaluate comprehension
 - Homework assignments may include short research papers (1–3 pages + references)
 - 10 % Research Papers
 - A series of short research papers will be assigned throughout the semester.
 - Each student must submit one 1000 to 2000 word paper on an approved topic of his/her choice before January of 2007.
 - Science Fair
 - Each student, working alone or in pairs, is encouraged to develop a presentation for the Sydney Academy Science Fair. The project could be an experiment, a study, or an innovation.
 - The science fair project mark may be used to replace a lab or research paper mark
 - The independent lab and research papers may be incorporated into their science fair project.
- ❖ **30%** **Exams – January Exam and April Exam**
 - January Exam covers the topics covered between September 2008 and January 2009
 - April Exam covers the entire IB Physics curriculum (All Core Topics + choice of 2 Options)

November, January, and April reports are progress reports and are **not** used as a proportion of the final grade

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PHYSICS 12 IB

TEACHER COMMUNICATION PLAN

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TEXT

McGraw-Hill Ryerson Physics (2003)

- Students are expected to do all Practice Problems in the sections studied.

Physics for the IB Diploma (2007). IB Study Guide by Tim Kirk. Oxford Press

ATTENDANCE

Attendance is a key factor affecting the academic success of a student as well as their understanding and enjoyment of the course. Significant absences from class may be detrimental to student achievement.

Students are expected to keep up with course work while they are absent from school

Monthly attendance profiles will be sent home with the students to be reviewed and signed by a parent / guardian and returned promptly to the homeroom teacher.

During class periods, students are expected to remain in the classroom and participate in class activities. Students should use the washroom and consume any food or beverages before class begins. Only water is to be consumed in class.

ABSENCES AND EVALUATIONS

In the case of frequent absences by a student, the teacher may decide to do a make-up test or assignment at their discretion. Students who are required to make-up any test or in-class project/assignment, must be prepared to write said test, project or assignment upon their return to school. The date of the writing of said test, project or assignment will be entirely at the teacher's discretion.

- An **UNEXCUSED ABSENCE** for a test results in a mark of **ZERO** for the test or evaluation.
- If the absence was excused by the parent/guardian within 5 school days, the overall evaluation will be pro-rated.

Tests

- Generally, make-up tests will **NOT** be offered.
- Make-up tests may be offered at the discretion of the teacher

Labs

- Experiments are an integral component of this course. Students are required to have a minimum number of hours performing experiments
- Any missed lab time must be made up outside of class time, usually during lunch

Assignments

- Projects and other assignments (including homework) are due at the beginning of class.
- It is the responsibility of the student to submit assignments on their due dates even when the student is absent during the class in which it is due.
- Projects may be submitted by electronically from the student's EDNET email. Each student has access to their own ednet email and students should contact Mr. Dalzell for assistance with their ednet account

CONTACT INFORMATION

Extra Help Students who want clarification or confirmation of their ideas or methods should see me as the need arises.

I will be available for extra help for individuals or groups of students every lunch from 12:15 – 12:40
The relatively long noon hour is best for extra help but I am also available after school until 3.

Web Site A web site has been designed for Physics 12 IB to provide course information and support for students and parents. The site includes the daily course schedule (topics, activities, tests, due dates) and some links to notes.

The website address is: sacademy.cbv.ns.ca/staff/bdalzell/P2IPage.html

or go to my web site: sacademy.cbv.ns.ca/staff/bdalzell
and select **Physics 12 IB**

or go to the school site: sacademy.cbv.ns.ca
and select **Staff** → Staff Sites → Mr. B. Dalzell

Personal Parents/guardians are encouraged to contact the teacher at the school by telephone (562-5464) or by e-mail (bdalzell@staff.ednet.ns.ca).

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This certifies that I, _____, the _____ of

name of parent / guardian

relationship (mother, father, aunt, etc.)

_____ have read and maintained a copy of this teacher

name of student

communication plan.

Date: _____

Signature of Parent / Guardian