

Physics IB 12

Bruce Dalzell – Sydney Academy
TEACHER COMMUNICATION PLAN – September 2008

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: Energy, power and climate change
- Two Options

ASSESSMENT AND EVALUATION:

❖ **30% Major Tests**

- Each topic will be tested using the same format as their IB Exam in May of 2009.
 - 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**

- 10-20% 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

❖ **30% Exams – January Exam and Mock IB exams**

- January Exam covers the topics covered between September 2008 and January 2009
- Mock IB Exam covers the entire IB Physics curriculum (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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