



I.E. WELDON SECONDARY SCHOOL COURSE INFORMATION SHEET

Course: SPH 3UB/4UB IB Physics SL

Teacher: Mr. M. Bell

Website: <http://mail.tdsb.on.ca/~Michael.Bell/>

Room #: 189

Voicemail: 324-3585 ext.19007

Email: michael.bell@tdsb.on.ca

Course Description

In this course students develop an understanding of the basic concepts of physics through an analysis of the interrelationships between physics and technology, and a consideration of the global impact on society and the environment of technological applications of physics. Students develop their analytic skills as well as the habits of mind required for scientific study. Throughout the course, students will understand that physics has historically been a co-operative endeavour involving many individuals, teams of scientists, and governments representing a rich variety of ethnic backgrounds and nationalities.

This course is covered over two semesters, and satisfies the requirements of the Ontario Ministry of Education for Grade 11 and 12 University Preparation Physics. A Practical Scheme of Work (PSOW) will include various laboratory activities designed to satisfy the IB requirements for internal assessment, as well as support the material being taught in the Ontario grade 11 and 12 curriculum. This year students will be studying Option B: Engineering Physics. This contains material not covered in the Ontario Curriculum and is designed to help students who want to pursue Engineering.

Units of Study

	<u>Required Hours</u>
Topic 1: Measurement and Uncertainties	5
Topic 2: Mechanics	22
Topic 3: Thermal Physics	11
Topic 4: Waves	15
Topic 5: Electricity and Magnetism	15
Topic 6: Circular Motion and Gravitation	5
Topic 7: Atomic, Nuclear, and Particle Physics	14
Topic 8: Energy Production	8
Option B: Engineering Physics	15
Practical Scheme of Work (Labs)	20
Internal Assessment	10
Group 4 Project	10
Total:	150

Texts and Resources

Physics for the IB Diploma, 6th Edition, K. A. Tsokos

Cost: \$50

Required Materials:

- Notebook – 1 ½" or 2" three ring binder with dividers.
- Lab Notebook – 1" binder for PSOW
- Lined paper, graph paper
- Pens, PENCILS, protractor, ruler
- Scientific Calculator – must meet current IB regulations if programmable

Evaluation Procedure

The assessment will satisfy both the requirements of the Ontario Ministry of Education for a credit in grade 11 and 12 physics, and the internal and external IB assessments.

Determination of SPH 3UB mark in Semester 1:

Tests	40%
Labs/Assignments/Quizzes	20%
Group 4 Project	10%
Final Exam	30% (written during final exam period in January)

IB Assessment (Used for SPH 4UB predicted grade in Semester 2)

Internal Assessment (IA) 20%

Each student will compile a Practical Scheme of Work (**PSOW**) based on activities that are conducted in the laboratory to support the theoretical material. A total of 20 hours of classroom activities will be required but do not count for the IA grade. The **Group 4 Project** is not part of the IA, but the 10 classroom hours spent on the project must be included on the PSOW. **The final IA project is an individual lab that will be assessed and submitted to IB for moderation in April. This is will take 10 hours and is worth 20% of the final grade.**

External Assessment (EA) 80%

The SL Physics external assessment will consist of three written papers that are weighted as 80% of the final IB grade. These exams will be written on **May 6 & 9, 2016**. The format of EA is outlined in the IB syllabus.

Deadlines

Students are expected to meet all deadlines set out by the subject teacher.

Academic Dishonesty

Any ideas or words that come from any source other than from personal experience must be formally referenced. Failure to do so is considered plagiarism. Cheating during tests or exams is forbidden. Academic dishonesty of any kind results in a mark of **zero**.

Missed Evaluations

Students who are absent the day of an evaluation are expected to write the day they return to school or at a time agreed upon by the teacher. Arrangements regarding planned absences must be made with the teacher in advance.

*****ALL LABS FOR THE PSOW MUST BE COMPLETED. If you are absent the day of a lab, you MUST perform the experiment at a time suitable to the teacher.**

Reporting

Student achievement will be reported in all courses at the following times:

Semester #1

Mark Update Week – Oct 19 - 23

Parents' Night – October 29 – 4:30 to 7:00 p.m.

Interim Report Card Issued – November 27 (tentative)

Mark Update Week – December 14 - 18

Final Report Card Issued – second week of February 2016



Please sign in the space below to acknowledge you have read and understood this document.

Student Signature

Parent/Guardian Signature