# *Grade 11 University Physics: SPH 3U1*

***Course Outline:***

*St. Mary's High School*

*Winter 2020*

*Miss L. Takken*

**Credit Value:** 1

**Prerequisite:** SNC 2D1

This course develops students' understanding of the basic concepts of physics. Students will explore kinematics, with emphasis on linear motion; different kinds of forces; energy transformations; the properties of mechanical waves and sound; and electricity and magnetism. They will enhance their scientific investigation skills as they test laws of physics. In addition, they will analyse the interrelationships between physics and technology, and consider the impact of the technological applications of physics on society and the environment. This course will help students to learn to be reflective, critical and creative thinkers, as well as discerning believers, who can apply their knowledge to the world around them. They can then use this knowledge to make decisions in light of Gospel values and Church teachings. [Course Selection Booklet]

**Text:** Physics: Concepts and Connections. Nowikow, Igor and Brian Heimbecker. Irwin Publishing, 2001

**Classroom Rules:**

1. **Show respect, to all, at all times.**
2. Be on time.
3. Be prepared.
4. Be safe. Follow all safety rules and procedures.
5. Assigned work is due on the assigned date.
6. If you miss a class it is ***your*** responsibility to;

a. obtain any work which was missed. (website: www.misstakken.weebly.com)

b. determine what material was submitted for evaluation and submit it. (submit to google docs or email at linda\_takken@bgcdsb.org)

c. obtain all handouts and assignments. (website: www.misstakken.weebly.com)

**Evaluation:**

|  |  |
| --- | --- |
| **Ongoing Assessment 70%** | **Final Assessment 30%** |
| Knowledge and Understanding 30% | Summative Activity 10% |
| Application, Thinking and Investigation 30% | Exam 20% |
| Communication 10% |  |

**Attendance:**

The Ontario Ministry of Education and Training Document, Ontario Secondary Schools: Grade 9 to 12 states "regular attendance at school is critical for the student's learning and achievement of course expectations."

**Units of Study:**

**Unit 1 ~** Kinematics: Chapters 1-3, **Unit 2 ~** Forces: Chapters 4-5,

**Unit 3 ~** Energy and Society: Chapters 7-8, **Unit 4 ~** Waves and Sound: Chapters 13-14

**Unit 5 ~** Electricity and Magnetism: Chapters 15-19

***Criteria for Evaluation***

As a student in Grade 11 University Physics, it is important that you fully understand how your final mark will be determined. The purpose of this handout is to inform you of what is expected of you in this course and specifically how you will arrive at your final mark.

**Tests and Quizzes:**

A test will be given after every unit, perhaps twice in a unit if is a complex one. Reasonable advance notice will be given to students for all major tests. Quizzes may be given at any time with or without previous notice. Quizzes may be on homework, lab work or class work.

Assessment and evaluations are taken very seriously in this class. It is extremely important that all students be present on the day of a test. Attempts will be made to avoid conflicts with test dates. However, if a student knows that it is impossible to be present for a test, they must make arrangements with Miss Takken to write their assessment prior to the test date. If a student is absent on the day of a test, without making prior arrangements, a zero will be recorded for that test.

**Lab Reports and Assignments:**

Lab Reports and assignments will be assigned throughout the semester. It is very important to complete these assignments by the day which they are due. Assignments will be collected at the beginning of the period. Late exceptions can be sought in advance from the teacher but they are given at the teacher's discretion and only in rare circumstances.

**Supplies:**

Students will require a three-ring binder, with dividers, graph paper, a ruler and a scientific calculator. Students must bring all supplies, every day, along with their textbook.

**Summative Project:**

Each student in this class is responsible for completing a project as part of their final assessment. This project will involve research and concise communication of results.

**Marks:**

Your performance on assigned tasks will be given out periodically. It is your responsibility to check these postings and inform the teacher of any discrepancies.

**Homework:**

Students can expect homework in this course EVERY night. This course is challenging and very rewarding, provided that the homework is completed.

**Extra Help:**

**Note: Miss Takken has office hours most days at lunch. If you need extra help or need to finish a lab make use of this service. As well after school is a possibility if you ask ahead of time.**

**Course Outline Acknowledgement**

**SPH 3U1**

I am fully aware of the expectations and evaluation in SPH 3U1 and my parents have read the outline.

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Please Print Student's Full Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian's Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

To contact you about the student's progress, it would be helpful if you would provide the information below:

Phone Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Email Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Time of day when it is best to contact you: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Other information or comments:

**Proper attendance and homework completion will contribute greatly to your son's/daughter's success in this class. Thank you in advance for your help in these areas. As well, I have a website where I post assignments and daily notes. These can be found at** [**www.misstakken.weebly.com**](http://www.misstakken.weebly.com)**. I can be reached by email at** [**linda\_takken@bgcdsb.org**](mailto:linda_takken@bgcdsb.org)**.**

Your comments and any communication are always appreciated.