

OUR LADY OF LOURDES CATHOLIC HIGH SCHOOL

Physics, Grade 11 University Preparation Course Overview

Course Code: SPH 3U

Credit Value: 1

Teacher: Mrs. C. Hudecki

Course Description

This course develops students' understanding of the basic concepts of physics. Students study the laws of dynamics and explore different kinds of forces, the quantification and forms of energy (mechanical, sound, thermal, and electrical), and the way energy is transformed and transmitted. They develop scientific-inquiry skills as they verify accepted laws and solve both assigned problems and those emerging from their investigations. Students analyse the interrelationships between physics and technology, and consider the impact of technological applications of physics on society and the environment.

How This Course Supports the Ontario Catholic School Graduate Expectations

Through the study of physics, students have the opportunity to “discover the laws which govern the universe, as well as their interrelationship.” They (scientists, and therefore students) can “stand in wonderment and humility before the created and feel drawn to the love of the Author of all things.”(address of Pope John Paul II to the Jubilee of Scientists May 25, 2000) The study of any science helps 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 make appropriate decisions in light of Gospel values and Church teachings. Through the study of the techniques of science, particularly experimentation, students learn to be collaborative contributors to an interdependent team, respecting the rights, responsibilities, and contributions of others. Overall, students become aware of the spiritual, as well as the physical dimension of the world and of the need to respect the environment and to use resources wisely in order to fulfill their roles as stewards of God’s creation. “By increasing his knowledge of the universe ... man has a veiled perception ... of the presence of God....” (address of Pope John Paul II). Please see the Course Calendar/Agenda Book for a listing of the Ontario Catholic Graduate Expectations.

Ministry Website

The overall course expectations can be found on the ministry website:

<http://www.edu.gov.on.ca/eng/curriculum/secondary/science.html>

Course Website

A daily homework blog, helpful notes and assignments can be found at

www.hudeckisrsci.weebly.com

Units: Titles and Time

Unit 1	Kinematics	24 hours
Unit 2	Forces	20 hours
Unit 3	Energy & Society	22 hours
Unit 4	Waves & Sound	22 hours
Unit 5	Electromagnetism	22 hours

Assessment and Evaluation

A variety of assessment strategies will be utilized throughout the course. Students will have the benefit of formative assessment (feedback on progress) as well as summative (final) assessment.

Term Work (70% of final mark) composed of:	Culminating Activity (30% of final mark)
Knowledge & Understanding 20% Thinking & Inquiry 40% Communications 10% Applications/Making Connections 30%	This 30% is made up of: Compulsory Final Exam and/or Culminating Unit Tasks

Course Resources

Students are loaned a copy of *Physics 11 published by Addison Wesley*
The replacement cost is \$75 if lost.

Late/Missed Assignments

Students are expected to complete and/or submit all assessment and evaluation activities on the date determined by the teacher. The teacher (and/or principal when necessary) will decide if a late activity will be accepted for summative evaluation purposes or only for formative assessment with no level/mark recorded for grading.

Cheating and Plagiarism

Please see information regarding this topic in the Catholic Student Planners.

General Course Information

- Learning Skills: regular attendance, working independently, teamwork, organization, work habits, initiative, risk-taking, time-management, perseverance, questioning, curiosity and a love of learning are all essential to success in this course.
- A scientific calculator and graph paper are required.

Parent/Guardian/Student Signature

My signature below indicates that I have read and understood the course overview.

Student Signature: _____

Date: _____

Parent/Guardian Signature: _____

Date: _____

**Students: Please print this off keep this sheet at the front of your notebook.
Good luck in this course!**