|  |  | **Course Outline and Evaluation Summary**  **Course Code** | |  |
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|  | Title of Course: Grade 11 University Preparation Physics | 416-395-3210 x 20095 | |
|  | Department: Science |  | |

| **Course Description** |
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| This course includes selected topics in physics. Student activities offer inductive investigation of some of the topics, applications of the topics, and provide students with the opportunity to develop skills related to problem solving, laboratory procedures, application to physical and mechanical situations, as well as providing a foundation for future science courses.  **Prerequisite:**  Science, Grade 10, Academic |

| **Course Evaluation**  Course evaluations incorporate one or more of the achievement categories (KICA). A brief description of each category can be found [here](https://www.dcp.edu.gov.on.ca/en/assessment-evaluation/categories-of-knowledge-and-skills). The final grade is calculated using the weighted percentages below. | | | | | |
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| **Term Work:** | **A variety of tasks where you show your learning and have marks assigned using the Achievement Categories/Strands** | | **Summative**  **Evaluation:** | **Marked summative tasks which assess your learning on the entire course** | |
| 70% | 15 % | Knowledge & Understanding | 30% | 10% | Summative project |
| 20 % | Thinking & Inquiry |
| 25 % | Application | 20% | Final Exam |
| 10 % | Communication |

| **Learning Skills** |
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| Learning skills provide Information to help students understand what skills, habits & behaviors are needed to work on to be successful. These are not connected with any numerical mark. A brief description of each skill can be found [here](http://www.edu.gov.on.ca/eng/policyfunding/growsuccess.pdf#page=17).  **Responsibility, Organization, Independent Work, Collaboration, Initiative and Self-Regulation**  E – Excellent G – Good S – Satisfactory N – Needs Improvement |

| **Required Materials:** Any educational resource required for this course will be provided by the school. In addition, it is the student’s responsibility to come to class with these materials: 3 ring binder, loose-leaf paper, graph paper, scientific calculator, pen(s), pencil(s), ruler and scissors. |
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| **School/Departmental/Classroom Expectations** |
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| **Attendance:** The student is expected to attend class on time. Parents/guardians will be contacted if lateness/attendance becomes an issue/hindrance. If the student knows about an absence in advance, they should contact the teacher.  **Plagiarism/Cheating:** A mark of 0 will be assigned for any work submitted that does not belong to the student. A mark of 0 will be assigned to a student who was found to have cheated. Parents/guardians will be informed.  **Missed Work:** If a student is absent from class, (e.g. illness, sports team, contests) it is **their** responsibility to find out what they have missed and to catch up. The student is responsible for completing all of the work that was missed due to an absence. If a student misses an assignment or test without a legitimate explanation and documentation, marks up to and including the full value of the evaluation may be deducted. Make-up tests must be arranged to be written.  **Late Work:** Late work may result in a deduction of marks up to and including the full value of the evaluation. |

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| **Course Assessment Tasks** | | | |
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| ***Unit/Topic/Strand*** | ***Big Ideas*** | ***Major Assignments / Evaluations*** | ***Estimated Duration*** |
| Unit 1 - ***Kinematics*** | * Motion involves a change in the position of an object over time. * Motion can be described using mathematical relationships. | Labs  Quizzes  Unit test | 25 hours 20 classes |
| Unit 2 - **Forces** | * Forces can change the motion of an object. * Applications of Newton’s laws of motion have led to developments that affect society and the environment. | Labs  Quizzes  Unit test | 20 hours  16 classes |
| Unit 3 - ***Energy and Society*** | * Energy can be transformed from one type to another. * Energy transformation systems often involve thermal energy losses and are never 100% efficient. * Although technological applications that involve energy transformations can affect society and the environment in positive ways, they can also have negative effects, and therefore must be used responsibly. | Labs  Quizzes  Unit test | 25 hours  20 classes |
| Unit 4 - ***Waves and Sound*** | * Mechanical waves have specific characteristics and predictable properties. * Sound is a mechanical wave. * Mechanical waves can affect structures, society, and the environment in positive and negative ways. | Labs  Quizzes  Unit test | 15 hours  12 classes |
| Unit 5 - ***Electricity and Magnetism*** | * Relationships between electricity and magnetism are predictable. * Electricity and magnetism have many technological applications. * Technological applications that involve electromagnetism and energy transformations can affect society and the environment in positive and negative ways. | Labs  Quizzes  Unit test | 20 hours  16 classes |
| Culminating and Other Task(s) |  | Summative project  Final Exam | 5 hours  4 classes |