|  |  | **Course Outline and Evaluation Summary**  **Course Code** | |  |
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|  | Title of Course: Grade 11 University Preparation Chemistry | 416-395-3210 x 20095 | |
|  | Department: Science | leslie.fradkin@tdsb.on.ca | |

| **Course Description** |
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| In this course, students will deepen their understanding of chemistry through the study of the properties of chemicals and chemical bonds; chemical reactions and quantitative relationships in those reactions; solutions and solubility; and atmospheric chemistry and the behavior of gasses. Students will further develop their analytical skills and investigate the qualitative and quantitative properties of matter, as well as the impact of some common chemical reactions on society and the environment.  **Prerequisite:** SNC2D |

| **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% | 20% | Knowledge & Understanding | 30% | 15% | Culminating Lab Task |
| 25% | Thinking & Inquiry |
| 15% | Communication | 15% | Final Exam |
| 10% | Application |

| **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 the following materials: Non-programmable scientific calculator, paper, pencils/pens, 3-ring binder, ruler, stapler. |
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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 lates/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) 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:  **Matter, Chemical Trends, and Chemical Bonding** | * Every element has predictable chemical and physical properties determined by its structure. * The type of chemical bond in a compound determines the physical and chemical properties of that compound. * It is important to use chemicals properly to minimize the risks to human health and the environment. | * Unit Test * Lab: Determining the Thickness of Aluminum Foil * Lab: Building Molecular Models * Quizzes | **20 classes** |
| Unit 2:  **Chemical Reactions** | * Chemicals react in predictable ways. * Chemical reactions and their applications have significant implications for society and the environment. | * Unit Test * Lab: Types of Reactions * Quizzes | **18 classes** |
| Unit 3:  **Quantities in Chemical Reactions** | * Relationships in chemical reactions can be described quantitatively. * The efficiency of chemical reactions can be determined and optimized by applying an understanding of quantitative relationships in such reactions. | * Unit Test * Lab: Combustion of Magnesium * Lab: Formula of a Hydrate * Quizzes | **18 classes** |
| Unit 4:  **Solutions and Solubility** | * Properties of solutions can be described qualitatively and quantitatively, and can be predicted. * Living things depend for their survival on the unique physical and chemical properties of water. * People have a responsibility to protect the integrity of Earth’s water resources. | * Unit Test * Lab: Diluting Solutions * Lab: Titrations * Quizzes | **20 classes** |
| Unit 5:  **Gases and Atmospheric Chemistry** | * Properties of gases can be described qualitatively and quantitatively, and can be predicted. * Air quality can be affected by human activities and technology. * People have a responsibility to protect the integrity of Earth’s atmosphere. | * Unit Test * Quizzes | **7 classes** |
| Culminating and Other Task(s) |  | * Lab Summative * Global Chemist project | **3 classes** |