

TDSB
Name of Department: Biology, Chemistry
Curriculum Leader: C. Papaiconomou
Teacher(s): S. Harris, C. Papaiconomou
Year(s): 2015-2016



Pre-requisites: SCH3U
Textbook: Chemistry 12 (Nelson)
Phone: (416) 393-9500
Office Hours: before school, at lunch,
after school

Grade 12 Chemistry, University

COURSE DESCRIPTION

This course enables students to deepen their understanding of chemistry through the study of organic chemistry, the structure and properties of matter, energy changes and rates of reaction, equilibrium in chemical systems, and electrochemistry. Students will further develop their problem-solving and investigation skills as they investigate chemical processes, and will refine their ability to communicate scientific information. Emphasis will be placed on the importance of chemistry in everyday life and on evaluating the impact of chemical technology on the environment.

OVERALL EXPECTATIONS

Electrochemistry

Oxidation and reduction are paired chemical reactions in which electrons are transferred from one substance to another in a predictable way.

The control and applications of oxidation and reduction reactions have significant implications for industry, health and safety, and the environment.

Structure and Properties of Matter

The nature of the attractive forces that exist between particles in a substance determines the properties and limits the uses of that substance.

Technological devices that are based on the principles of atomic and molecular structures can have societal benefits and costs.

Energy Changes and Rates of Reaction

Energy changes and rates of chemical reactions can be described quantitatively.

Efficiency of chemical reactions can be improved by applying optimal conditions.

Technologies that transform energy can have societal and environmental costs and benefits.

Chemical Systems and Equilibrium

Chemical systems are dynamic and respond to changing conditions in predictable ways.

Applications of chemical systems at equilibrium have significant implications for nature and industry.

Organic Chemistry

Organic compounds have predictable chemical and physical properties determined by their respective structures.

Organic chemical reactions and their applications have significant implications for society, human health, and the environment.

SPECIFIC DEPARTMENT INFORMATION

Students should bring the following materials to science class: pens, pencils, eraser, scientific calculator, lined paper, ruler and a 3 ring binder.

For more information about activities at Lawrence Park CI visit:

<http://schoolweb.tdsb.on.ca/lawrenceparkci/Home.aspx>

ASSESSMENT AND EVALUATION STRATEGIES

ACADEMIC HONESTY: CHEATING AND PLAGIARISM

All students in the Toronto District School Board are expected to submit their own work for evaluations. Cheating and plagiarism will not be condoned. To ensure a full understanding of academic honesty students are expected to:

- seek clarification from teachers about actions that constitute plagiarism
- seek assistance when their research skills need improvement
- understand the penalties for academic dishonesty and plagiarism; and
- ensure that all their work is original and that they cite sources accurately and consistently

Consequences for academic misconduct could result in assignments of a lower grade (including zero), failure in a course and removal from a course and/or suspension from school.

EVALUATION OF LATE OR MISSED ASSIGNMENTS

Students are responsible for their own behaviour and for completing and submitting work for evaluation on time. Students must make themselves aware of each due date and the ultimate deadline which is the last opportunity a student has for submitting an assignment for evaluation.

Teachers support students in the development of their skills and work habits that make them successful learners. Teachers, students and parents will work together and use a number of strategies to ensure that students complete their work and submit it on time. Students must also understand that there are consequences for incomplete, missing and late assignments. When a number of strategies have been tried, marks may be deducted up to and including the full value of the assignment.

MISSED EVALUATIONS

It is the student's responsibility to make arrangements, ahead of time, for any evaluations that may be missed. If a student misses a test due to an illness or family emergency, then that student must bring a note signed by a parent/guardian with a phone number where they can be reached in the evening. Also, that student will be expected to write a make-up test immediately upon return to school. Missed exams require a medical note that states the student was medically incapable of writing an exam.

PURPOSE OF ASSESSMENT

The term assessment is used to mean a set of actions undertaken by the teacher and student to gather information about student learning.

ASSESSMENT FOR LEARNING

Assessment *for* learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go, and how best to get there.

ASSESSMENT AS LEARNING

Assessment *as* learning focuses on the explicit fostering of students' capacity over time to be their own best assessors. This type of assessment occurs frequently and in an ongoing manner and helps students reflect on their learning and set individual goals for learning.

ASSESSMENT OF LEARNING

Assessment *of* learning is the assessment that becomes public and results in the student's overall grade. This type of assessment occurs at or near the end of a period of learning, and may be used to inform further instruction.

LEARNING SKILLS

Skills such as responsibility, organization, independent work, collaboration, initiative, and self-regulation are assessed on an ongoing basis. Good attendance, academic integrity, homework and timely assignment completion are also crucial to the success of the student.

COURSE EVALUATION

Course Work – 70%

Ongoing **assessment of learning** will occur to allow students the opportunity to be successful. Your achievement will be assessed during each unit to determine how well you are progressing towards achieving course expectations. Course work will be assessed using the four learning categories: 1) Knowledge/Understanding; 2) Thinking/Inquiry; 3) Communication and 4) Application. The weighting of each learning category varies by subject and course.

Descriptive feedback from your teacher will enable you to improve. Assessment of learning in course work will determine 70% of your overall grade. Examples of tasks used to determine this mark may include: tests, assignment, reflections, essays etc.

Learning Categories

<u>Knowledge and Understanding</u>	<u>24.5%</u>
<u>Thinking/Inquiry</u>	<u>24.5%</u>
<u>Communication</u>	<u>10.5%</u>
<u>Application</u>	<u>10.5%</u>

Culminating Task – 30%

Culminating Task: Final Exam (30%)

You are expected to take part in the course culminating activity. This will allow you the opportunity to demonstrate your achievement of all the course expectations. The Culminating Task will determine 30% of your overall grade in this course. Examples of culminating tasks are an argumentative research paper, final exam, presentation etc.