



FOREST HILL CI

SCH3U GRADE 11 UNIVERSITY CHEMISTRY COURSE OUTLINE

PREREQUISITE: GRADE 10 SCIENCE

Resources

Teachers: Ms. Pupovac
Phone: 416.393.1860 x20219
Email: jelena.pupovac@tdsb.on.ca

Textbook: The grade 11 Chemistry textbook is "Chemistry 11" by Nelson. The replacement cost of the textbook is \$80.

Tools for Success/Learning Skills

Responsibility	<ul style="list-style-type: none">Understand and follow this course outline and the policies outlined in the Student Agenda.Arrive on timeCome prepared to work with all necessary tools
Organization	<ul style="list-style-type: none">Keep an organized notebookKeep an organized calendar of important dates
Independent Work	<ul style="list-style-type: none">Stay on taskAvoid disrupting the learning of others.Do homework regularly and complete all assigned workReview/study the work often
Collaboration	<ul style="list-style-type: none">Be a responsible group member.Help your peers succeed by sharing ideas, tutoring and studying togetherPrepare for labs as a team with a focus on each other's safety
Initiative	<ul style="list-style-type: none">Be active participants in the classroomAsk questions when unsure of the material & seek extra help when needed.Ensure that you get any missed handouts and catch up on missed work
Self-Regulation	<ul style="list-style-type: none">Set goals and make good choices regarding academic success.Respect yourself, classmates and teachers.

Academic Honesty: Cheating and Plagiarism

Students are expected to submit only their own original work on evaluations done in class or out of class. Plagiarism is the passing off the ideas or writings of another as one's own. Cases of academic dishonesty (cheating and/or plagiarism) will be dealt with on a case-by-case basis, but each case will involve investigation, communication with the student and his/her parent/guardian, and a mark of zero for plagiarized work. Whether the student has an opportunity to demonstrate his/her learning in another assignment will be at the discretion of the teacher and/or Principal.

Assessment and Evaluation

The primary purpose of assessment and evaluation is to improve student learning. Assessment can take on one of three forms (described below). See page 31 of *Growing Success* for a detailed description of assessment.

Diagnostic	Assessment FOR learning determines how learning should proceed at the beginning of a unit.
Formative	Assessment AS learning provides feedback for a student to determine where improvement is needed. An example of this is homework.
Summative	Assessment OF learning evaluates what a student has learned at the conclusion of a unit/course. An example of this is a test or exam.

Evaluation of student achievement will be defined by four broad **Achievement Categories** (described below). The category weighting for semester work is shown.

Semester Work		70%
Knowledge & Understanding	Specific content acquired in the course and the comprehension of its meaning and significance.	30%
Thinking & Investigation	The use of critical and creative thinking skills and inquiry, research, and problem-solving skills.	30%
Communication	The conveying of meaning through various forms.	20%
Application	The use of knowledge and skills to make connections within and between various contexts.	20%
Final Exam		30%

Academic Integrity: Missed Classes, Evaluations and Assignments

It is the **responsibility of the student** to notify **all** appropriate parties (teachers, office, coach, etc) **in advance** where appropriate and in compliance with school policies and procedures as per student agenda if the student will be absent. This allows for both the student and teacher to make alternative arrangements regarding missed assignments or evaluations. In the event that advance notice is not possible, students should seek out the teacher in the morning (before school) with the appropriate documentation (e.g. Doctor's note, photocopied note from the office) in order to ensure that they have the opportunity to make-up the missed evaluation/assignment and course work.

Overall Course Expectations

Specific expectations can be found at the Ministry of Education's Website:

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

A. SCIENTIFIC INVESTIGATION SKILLS AND CAREER EXPLORATION

Throughout this course, students will:

- demonstrate scientific investigation skills (related to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analyzing and interpreting, and communicating);
- identify and describe a variety of careers related to the fields of science under study, and identify scientists, including Canadians, who have made contributions to those fields.

B. 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.

By the end of this course, students will:

- analyze the properties of commonly used chemical substances and their effects on human health and the environment, and propose ways to lessen their impact;
- investigate physical and chemical properties of elements and compounds, and use various methods to visually represent them;
- demonstrate an understanding of periodic trends in the periodic table and how elements combine to form chemical bonds.

C. CHEMICAL REACTIONS

- Chemicals react in predictable ways.
- Chemical reactions and their applications have significant implications for society and the environment.

By the end of this course, students will:

- analyze chemical reactions used in a variety of applications, and assess their impact on society and the environment;
- investigate different types of chemical reactions;
- demonstrate an understanding of the different types of chemical reactions.

D. 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.

By the end of this course, students will:

- analyze processes in the home, the workplace, and the environmental sector that use chemical quantities and calculations, and assess the importance of quantitative accuracy in industrial chemical processes;
- investigate quantitative relationships in chemical reactions, and solve related problems;

- demonstrate an understanding of the mole concept and its significance to the quantitative analysis of chemical reactions.

E. 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.

By the end of this course, students will:

- analyze the origins and effects of water pollution, and a variety of economic, social, and environmental issues related to drinking water;
- Investigate qualitative and quantitative properties of solutions, and solve related problems;
- demonstrate an understanding of qualitative and quantitative properties of solutions.

F. 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 responsibility to protect the integrity of Earth's atmosphere.

By the end of this course, students will:

- analyze the cumulative effects of human activities and technologies on air quality, and describe some Canadian initiatives to reduce air pollution;
- investigate gas laws that explain the behaviour of gases, and solve related problems;
- demonstrate an understanding of the laws that explain the behaviour of gases.