

	COURSE EVALUATION PROFILE & OUTLINE TEACHER: DEPARTMENT: SCIENCE PHONE: TEXTBOOK REPLACEMENT COST C\$	2011/2012 COURSE NAME: Grade 12 Chemistry COURSE CODE: SCH4U
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Course Description/Rationale/Overview:

This course focuses on the concepts and theories the following units. Thermo chemistry, Rates of Reaction, Chemical Equilibrium, Organic Chemistry, Atomic Structure, Shapes and Properties. Prerequisite for SCH4U is SCH3U

Learning Skills	Evaluated on Report Card as: E (excellent); G (good); S (satisfactory); N (needs improvement)
Responsibility	Fulfils responsibilities and commitments within the learning environment; completes and submits class work, homework, and assignments according to agreed-upon timelines; takes responsibility for and manages own behavior.
Organization	Devises and follows a plan and process for completing work and tasks; establishes priorities and manages time to complete tasks and achieve goals; identifies gathers, evaluates, and uses information, technology, and resources to complete tasks.
Independent Work	Independently monitors, assesses, and revises plans to complete tasks and meet goals; uses class time appropriately to complete tasks; follows instructions with minimal supervision.
Collaboration	Accepts various roles and an equitable share of work in a group; responds positively to the ideas, opinions, values, and traditions of others; builds healthy peer-to-peer relationships through personal and media-assisted interactions; works with others to resolve conflicts and build consensus to achieve group goals; shares information, resources, and expertise and promotes critical thinking to solve problems and make decisions.
Initiative	Looks for and acts on new ideas and opportunities for learning; demonstrates the capacity for innovation and a willingness to take risks; demonstrates curiosity and interest in learning; approaches new tasks with a positive attitude; recognizes and advocates appropriately for the rights of self and others.
Self-Regulation	sets own individual goals and monitors progress towards achieving them; seeks clarification or assistance when needed; assesses and reflects critically on own strengths, needs, and interests; identifies learning opportunities, choices, and strategies to meet personal needs and achieve goals; perseveres and makes an effort when responding to challenges.

Achievement Categories for Course Work	Description	Course Work Value (70%)
Knowledge/understanding	<ul style="list-style-type: none"> - knowledge of facts & terms - understanding concepts, principles, and theories - understanding of relationships between concepts 	24.5%
Thinking	<ul style="list-style-type: none"> - critical thinking skills (conducting analysis, detecting bias) - creative thinking (problem solving) - inquiry skills (formulating questions; conducting research; analysing, interpreting, and evaluating information; drawing conclusion) 	17.5%
Communication	<ul style="list-style-type: none"> - communication of information and ideas - use of symbols and visuals (use of technology - multi media) - oral communication (debates, role-playing) - written communication (reviews, short essays) 	14%
Application	<ul style="list-style-type: none"> - application of concepts, skills, and procedures - transfer of concepts, skills, and procedures to new concepts - making logical conclusions or generalizations - making predictions and planning courses of action - making connections 	14%
	Sub Total	70%

Evaluation/Assessment

Assignments:

- Assignments are due at the very beginning of the class. Assignments handed after the beginning of the class is considered late.
- Assignments are to be handed in on the due date; no assignment will be accepted after the final deadline.
- Late assignments can lose up to 10 %
- Once an assignment or a lab is returned, you will not be allowed to hand in your assignment.

Tests/Quizzes:

- You cannot miss quizzes and tests. If for medical reasons you miss the test you have to
- a) Your parents must call the school and leave a message with the secretary regarding your absence.
- b) Your parents must call the science office and inform me (the teacher) of your absence. Phone 416-396-2414 xt 20080. If you leave a message make sure you leave a call back number.
- c) Bring a doctor's medical certificate showing your inability to come to school. (It is **not** a doctor's appointment note)
- If in doubt talk to your teacher at the time the test is announced.

Attendance

- You must be in class every day. If you are absent I need a note from your parents explaining the absence.
- Lates are not permitted and will be recorded.

Behavior

- Respect yourself and others in the class.
- Obey all Safety Rules.
- Do not speak while others are speaking.
- If you have a question raise your hand

Extra Help

- I am available for extra help. If you need help please make an appointment with me, do not miss appointments, if you are unable to come do inform me ahead of time or ASAP.
- My desk can be found in the Math/Science office in room 330

Course Evaluation

Course Work

Knowledge/Understanding	24.5%
Inquiry	17.5%
Communications	14.0%
Making Connections	14.0%

Final Summative

Final Examination	30 %
Total	100%

Textbook: **Nelson Grade 12 Chemistry**

Replacement cost is \$

Materials: **Pens, Pencils, Paper, 3-ring Binder, Scientific Calculator (no graphing calculators are allowed for exams and tests) , Lab observation note pad / book, Safety Goggles**

Explanation of Achievement Categories:

Knowledge and Understanding: Subject-specific content acquired in each course (knowledge), and the comprehension of its meaning and significance (understanding)

Thinking and Investigation: The use of critical and creative thinking skills and inquiry, research, and problem-solving skills and / or processes.

Communication: The conveying of meaning through various forms.

Application: The use of knowledge and skills to make connections within and between various contexts.

Summary of Overall Course Expectations

Unit 1: Structures and Properties of Matter (Completed in grade 11 SCH3U)

Big Ideas

- 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.

Unit 2: Energy Changes and Rates of Reaction

Big Ideas

- 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.

Unit 3: Chemical Systems and Equilibrium

Big Ideas

- 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.

Unit 4: Electrochemistry

Big Ideas

- 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.

Unit 5: Organic Chemistry

Big Ideas

- 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.

Communication

Being able to communicate effectively is an important aspect of Science. This includes being able to explain your answers to questions and present information orally. Your communication skills will be assessed using the following Rubrics.

Criteria	Level 1	Level 2	Level 3	Level 4
Written communication	Scientific terminology is seldom used and is often incorrect. There are abundant spelling errors. Answer is rambling and much of it is off topic. Answer is disjointed and hard to follow.	Scientific terminology is sometimes used and is not always correct. There are frequent spelling errors. Answer is long and not always on topic. The flow of information is not well organized.	Scientific terminology is usually used and is correct. There are few spelling errors. Answer is fairly concise and mostly on topic. The flow of information is fairly logical	Scientific terminology is used meticulously and correctly. There are no spelling errors. Answer is concise and on topic. There is a logical flow of information.
Mathematical communication	Little explanation and justification of solution; poor use of vocabulary; frequently omits symbols, labels; doesn't follow conventions	Missing important information in explanation and justification of solution; errors in vocabulary; some omission of symbols and labels; conventions not always followed	Good explanation and justification of solution; good use of vocabulary; good use of mathematical symbols, labels and conventions	Excellent clarity of explanation and justification of solution; excellent use of vocabulary; mathematical symbols, labels and conventions used meticulously
Oral communication	Mumbles and avoids facing the audience; hesitant, obviously very nervous; poor use of vocabulary; disjointed flow of information	Voice not always clear and audible; some hesitation and little eye contact with audience; displays some nervous mannerisms; errors in vocabulary/terminology evident; flow of information not always logical	Clear, audible voice; good eye contact with the audience; good use of vocabulary and terminology; good organization of information; slight hesitation or minor nervous mannerisms displayed	Speaks clearly, audibly and confidently; makes eye contact with audience; excellent use of vocabulary and terminology; logical well organized flow of information; free of nervous mannerisms
Diagram and Drawing communication	The diagram is unclear or demonstrates the wrong material. The diagram is poorly drawn and/or the proper tools were not used. The diagram is not labeled.	The diagram is unclear or demonstrates some wrong information. The diagram is not completely correctly drawn and / or the proper tools were not all used. The diagram is not labeled properly.	The diagram is clear and demonstrates the correct information adequately. The diagram is correctly drawn and/or the proper tools were used in an adequate manner. The diagram is labeled adequately.	The diagram is exceptionally clear and demonstrates the correct information exceptionally well. The diagram is correctly drawn and / or the proper tools were used in an exceptional manner. The diagram is labeled exceptionally well.