

Strait Area Education-Recreation Center
Course Outline Chemistry 12
Teacher : Cyril Gillis

During the course, students will cover the following topics:

1. Thermochemistry
 - ◆ Experiments with energy changes
 - ◆ Thermochemistry and Potential Energy
 - ◆ Bonding and Hess's Law

2. Kinetics and Equilibrium
 - ◆ Rate of reaction
 - ◆ Collision Theory
 - ◆ Le Chatelier's principle
 - ◆ Equilibrium

3. Acids and Bases
 - ◆ Definitions
 - ◆ Reactions
 - ◆ Indicators
 - ◆ pH
 - ◆ Titrations

4. Electrochemistry
 - ◆ Oxidation and Reduction
 - ◆ Half Reactions
 - ◆ Electrochemical and Electrolytic Cells
 - ◆ Standard Reduction potentials

The resources that will be used in this course include:

Chemistry Text (McGraw-Hill Ryerson), **Chemistry Teacher's Guide** (McGraw-Hill Ryerson) **Nelson Chemistry** Teacher's Guide, **Addison Wesley** Teacher's Guide, **Chemistry-Interactive Journey** Computer Program, Internet Resources, as well as a number of Chemistry Resource text books.

The course will be evaluated according to the following plan:

Evaluation Tool	Percentage
Examination	30%
Tests	30% - 45%
Lab Reports / Assignments	10% - 25%
Lab Projects	0% - 10%
Total	100%

List sample planned instructional experiences that will be important to help students achieve the curriculum outcomes for this course.

1. Chemistry Lab sessions
2. Research projects on the internet. of current topics in Chemistry
3. Use of computers and probes
4. Chemistry class trip to university Chemistry class
5. Demonstrations to illustrate Chemical concepts
6. Discussion of pertinent issues in Chemistry
7. Class visits by Chemists and Chemical Engineers to discuss careers in Chemistry