



# COURSE OUTLINE

**Course Name:** Chemistry 12 - Part 1

**Course Number:** CHEM 0983

**Number of Credits:** 4.0

**Effective Date:** May 2017

**Course Description:**

The course examines the properties of matter. Core topics include safety in a laboratory environment, thermochemistry, the gas laws and reaction kinetics. Optional topics include the electronic structure of atoms, the periodic table and properties of elements, chemical bonding and molecular shapes.

Chemistry 12 - Part 1 (CHEM 0983) and Chemistry 12 - Part 2 (CHEM 0993) may be taken at the same time or in any order.

Chemistry 12 - Part 1 (CHEM 0983) and Chemistry 12 - Part 2 (CHEM 0993) are required for completion of ABE Provincial Level Chemistry

**School or Centre:**

School of Arts and Science

**Year of Study:**

ABE Provincial Level (Grade 12)

**Course History:**

Revised Course

**Name of Replacing Course (if applicable):**

**Course Pre-requisites (if applicable):**

- English 10 or equivalent with a C-. (Note: English 11 with a C- is strongly recommended.)
- Chemistry 11 or equivalent with a C-.
- Pre-calculus 11 successfully completed within the last 3 years with a C-, or a minimum score of 72% on the Intermediate Algebra Math Assessment, or equivalent. If the Math prerequisite is not met, MATH 0861 must be taken at the same time as CHEM 0983.

**Course Co-requisites (if applicable):**

**PLAR (Prior Learning Assessment & Recognition)**

No  Yes (details below):

**Instructional Strategies:**

Chemistry 12 - Part 1 (CHEM 0983) uses a lecture based model. A significant amount of class time will be spent on hands-on activities, concept-development worksheets and problem solving. A minimum of four labs will be conducted and will relate to the core topics.

**Course Learning Outcomes:**

Students will meet the competencies as stated for ABE Provincial Level (Grade 12) Chemistry. Please refer to the BC Adult Education Articulation Handbook which may be found at: <http://www.bctransferguide.ca/>

**Program Learning Outcomes:**

If this course is taken as part of the ABE Graduation Certificate program, see the Program Content Guide for the program learning outcomes.

## Evaluation/Grading System

Grading System	Specify if 'Other':	Specify Passing Grade:
Letter Grades		D

## Components and Weighting of the Assessment/Evaluation Plan:

Type	Percentage	Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):
Assignments	10	
Lab Work	25	including formal and informal lab reports
Exam	45	three tests at 15% each
Quizzes/Tests	20	a number of quizzes for a total of 20%
<b>Total</b>		<b>100</b>

## Learning Environment/Type

Instruction Type	Hours Per Instruction Type	Comments
L - Classroom	64	classroom and lab
E - Seminar	32	
<b>Total</b>		<b>96</b>

## Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.

## Course Topics:

Safety Measures in a Laboratory Environment  
Thermochemistry  
Gas Laws  
Reaction Kinetics  
Electronic Structure of Atoms - optional  
Periodic Table and Properties of Elements - optional  
Chemical Bonding - optional  
Molecular Shapes - optional

## VCC Education and Education Support Policies

There are a number of **Education** and **Education Support** policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at:

<http://www.vcc.ca/about/governance--policies/policies/>

To find out how this course transfers, visit the BC Transfer Guide at [www.bctransferguide.ca](http://www.bctransferguide.ca).

### FOR COMMITTEE USE ONLY

Approved by Curriculum Committee:	February 21, 2017	Approved by Education Council:	March 14, 2017
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