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## CHEM 0861: Chemistry 11 Part 1

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### EFFECTIVE DATE

January 2017

### DEPARTMENT

CF - Science

### DESCRIPTION

This course introduces students to the basic concepts of chemistry, including the scientific method, measurement, safety measures in a laboratory environment, density, elements and compounds, properties of matter, early atomic theory, atomic mass, nomenclature, percent composition, mole and molar mass, balancing equations, stoichiometry, gases and heat in chemical reactions. Both Chemistry 0861 and Chemistry 0871 are required for completion of ABE Advanced level Chemistry. It is recommended that Chemistry 0861 be taken before or at the same time as Chemistry 0871.

### CREDITS

4.0

### YEAR OF STUDY

ABE Advanced Level(Grade11)

### PREREQUISITES

English 10 or equivalent; Precalculus 11 ( successfully completed within the last 3 years), 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 0861.

### COREQUISITES

None

### COURSE LEARNING OUTCOMES

Upon successful completion of this course, students will be able to:

- Students will meet the learning outcomes for ABE Advanced Level Chemistry as stated in the most recent ABE Articulation Handbook. <https://www.bctransferguide.ca/search/abe> (2020 edition)

## PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

## HOURS

Lecture: 96

Lab: 64

## INSTRUCTIONAL STRATEGIES

Chemistry 0861 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.

## GRADING SYSTEM

Letter Grade (A-F)

## PASSING GRADE

D

## EVALUATION PLAN

| Type          | Percentage | Assessment activity                       |
|---------------|------------|-------------------------------------------|
| Assignments   | 5          |                                           |
| Lab Work      | 20         | including formal and informal lab reports |
| Exam          | 65         | four tests at 15% to 20% each.            |
| Quizzes/Tests | 10         | 5 quizzes for a total of 10%              |

## COURSE TOPICS

- Scientific Method
- Measurements
- Safety Measures in a Laboratory Environment
- Density
- Elements and Compounds
- Properties of Matter
- Early Atomic Theory
- Atomic Mass

- Nomenclature
- Percent Composition
- Mole and Molar Mass
- Balancing Equations
- Stoichiometry
- Heat in Chemical Reactions
- Gases - optional

## LEARNING RESOURCES

None

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:  
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

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### Broadway campus

1155 East Broadway  
Vancouver, B.C. Canada  
V5T 4V5

### Downtown campus

250 West Pender Street  
Vancouver, B.C. Canada  
V6B 1S9

### Annacis Island campus

1608 Cliveden Avenue  
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