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## CHEM 0993: Chemistry 12 Part 2

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### EFFECTIVE DATE

October 2020

### DEPARTMENT

CF - Science

### DESCRIPTION

This course examines why and how chemical reactions take place. Core topics include safety in a laboratory environment, chemical equilibrium (qualitative and quantitative aspects, equilibrium in acidbase systems, additional aspects of aqueous equilibria) and electrochemistry. This course provides an insight into the role of chemistry in industry and its role in the explanation of natural phenomena encountered in everyday life. Stoichiometry is reviewed. Chemistry 0983 and Chemistry 0993 may be taken at the same time or in any order. Chemistry 0983 and Chemistry 0993 are required for completion of ABE Provincial level Chemistry.

### CREDITS

4.0

### YEAR OF STUDY

ABE Provincial Level(Grade12)

### PREREQUISITES

English 10 or equivalent Chemistry 11 or equivalent Pre-calculus 11 (successfully completed within the last 3 years), or a minimum score of 72% on the Intermediate Algebra Math Assessment, or equivalent If the Math prerequisite is not met, MATH 0861 and 0871 must be taken at the same time as CHEM 0983 and 0993. English 11 strongly recommended

### COREQUISITES

None

### COURSE LEARNING OUTCOMES

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

- Students will meet the learning outcomes for ABE provincial Level Chemistry as stated in the most recent ABE Articulation Handbook.

## PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

## HOURS

Lecture: 96

Lab: 96

## INSTRUCTIONAL STRATEGIES

Class-based: Chemistry 0993 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	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%

## COURSE TOPICS

- Safety Measures in a Laboratory Environment
- Chemical Equilibria
- Additional Aspects of Aqueous Equilibria
- Electrochemistry

## 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  
Delta, B.C. Canada  
V3M 6P1

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