

SAMPLE COURSE OUTLINE

Course Code, Number, and Title:

CHEM 1118: Intermediate Chemistry

Course Format:

[Course format may vary by instructor. The typical course format would be:]

Lecture 4.0 h + Seminar 0.0 h + Lab. 3.0 h

Credits: 4.0

Transfer Credit: For information, visit bctransferguide.ca

Course Description, Prerequisites, Corequisites:

A continuation of the CHEM 1114 course with an increased emphasis on laboratory work. CHEM 1118 topics include solutions, descriptive kinetics, chemical equilibrium, acid-base chemistry, buffers, and electrochemistry.

Prerequisite(s): One of CHEM 1114 with "C+", Chemistry 11 with "B", or Chemistry 11 with "C" and Chemistry 12 with "C". In addition, one of: "S" in MATH 1150, or Precalculus 12 with "C-" or MDT 70. Prerequisites are valid for only three years.

Learning Outcomes:

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

- Understand and use laboratory skills and equipment to perform a variety of quantitative and qualitative experiments safely, efficiently and with precision.
- Demonstrate an understanding of the position chemistry plays in the pure and applied sciences, as well as the history of scientific discovery.
- Possess a thorough understanding of basic quantitative chemical concepts (including, but not limited to dimensional analysis, balancing of equations and stoichiometry) and use them to develop efficient problem-solving skills.
- Describe solutions in terms of concentrations and electrolytic properties and perform solution calculations (including stoichiometry).
- Demonstrate awareness that reactions occur at different rates and that reaction rates need to be determined experimentally.
- Demonstrate knowledge of collision theory and use it to explain how reaction rates can be changed.
- Represent graphically the energy changes associated with catalyzed and uncatalyzed reactions.
- Manipulate the Ideal Gas law and Partial pressures
- Understand the concept and requirements of equilibria, including the reaction quotient and law of mass action.
- Use equilibria expressions to solve a variety of quantitative problems.

Instructor(s): TBA
Office: TBA
Office Hours: TBA

Phone: (604) 323-XXXX

Email: TBA

Textbook and Course Materials:

[Textbook selection may vary by instructor. An example of texts and course materials for this course might be:]

For textbook information, visit https://mycampusstore.langara.bc.ca/buy_courselisting.asp?selTerm=318

Note: *This course may use an electronic (online) instructional resource that is located outside of Canada for mandatory graded class work. You may be required to enter personal information, such as your name and email address, to log in to this resource. This means that your personal information could be stored on servers located outside of Canada and may be accessed by U.S. authorities, subject to federal laws. Where possible, you may log in with an email pseudonym as long as you provide the pseudonym to me so I can identify you when reviewing your class work.*

Assessments and Weighting:

Final Exam 35%

Other Assessments

(An example of other assessments might be:)

Midterm 1: 20%

Midterm 2: 20%

Labs: 15%

Quiz x 3: 10%

Grading System:

Specific grading schemes will be detailed in each course section outline.

Information unavailable, please consult Department for details.

Topics Covered:

[Topics covered may vary by instructor. An example of topics covered might be:]

- Review of Chem 1114 (or Chem 11)
- Gases
- Chemical Equilibrium
- Acid-Base Equilibria
- Titrations and Solubility
- Electrochemistry
- Chemical Kinetics

As a student at Langara, you are responsible for familiarizing yourself and complying with the following policies:

College Policies:

[E1003 - Student Code of Conduct](#)

[F1004 - Code of Academic Conduct](#)

[E2008 - Academic Standing - Academic Probation and Academic Suspension](#)

[E2006 - Appeal of Final Grade](#)

[F1002 - Concerns about Instruction](#)

[E2011 - Withdrawal from Courses](#)

Departmental/Course Policies:

Information unavailable, please consult Department for details.

