ACADIA UNIVERSITY

Course Outline

CHEM 1013: General Chemistry 1	September 4, 2019

Lectures			**Location**
Section 1013A1:	John Murimboh	M/W/F: 8:30am – 9:30am	BAC 244
Section 1013B1:	Cathy Murimboh	M/W/F: 9:30am – 10:30am	BAC 236
Section 1013C1:	Anthony Tong	M/W/F: 10:30am – 11:30am	HSH 173
Section 1013D1:	John Murimboh	M/W/F: 11:30am – 12:30pm	KCIC 012

Office Hours	**Instructor**	**Email**	**Location**
M: 1:00 – 4:00 pm	Anthony Tong	anthony.tong@acadiau.ca	ELL 304
T: 1:00 – 4:00 pm	Cathy Murimboh	catherine.murimboh@acadiau.ca	ELL 211
W: 1:00 – 4:00 pm	John Murimboh	john.murimboh@acadiau.ca	KCIC LL34
H: 9:30 – 11:30 am (labs)	Ashley Parsons	ashley.parsons@acadiau.ca	ELL 215

Chemistry Help Centre	**Location**
Mon/Tue/Wed: 6:00 – 9:00 pm	ELL 303

Restrictions	
Pre-requisite	Nova Scotia grade 12 chemistry or equivalent with 60% or better

Textbook
Chemistry: A Molecular Approach (3rd Canadian Edition) Tro, Nivaldo J., Travis Fridgen, and Lawton Shaw Pearson Canada, 2019 Note: older editions are also acceptable
Alternate Textbooks
1. Principles of General Chemistry v1.0 (Averill and Eldredge) [HTML] 2. Chemistry Virtual Textbook (Stephen Lower, Simon Fraser University) [HTML] 3. Any first-year chemistry textbook

LEARNING, TEACHING, AND ASSESSMENT INFORMATION

Assessment		
Labs	20%	
Assignments	10%	Best 10 Assignments
Midterm 1	10%	Thursday, September 26, 2019
Midterm 2	10%	Thursday, October 17, 2019
Midterm 3	10%	Thursday, November 21, 2019
Final Exam	40%	
Total	**100%**	

Students with a valid excuse (e.g. illness) must contact their instructor at least one hour prior to the start of the midterm, complete the Declaration of Cause form, and submit to the Registrar's Office in person, by fax, by mail, or by email. The weight of the midterm will be transferred to the final exam. **Students who miss all three midterms, regardless of the reason, will receive a failing grade in the course.**

Labs

Lab Instructor: Ashley Parsons, ashley.parsons@acadiau.ca, ELL 215
Monday – Friday: 1:30 – 4:30pm (ELL 204, 206)
Prelab (ELL 207)

Attendance is required for all scheduled laboratories. This includes all laboratory activities, including pre-lab meetings. Absences during laboratory time will be categorized as either 'excused' or 'unexcused'. Unexcused absences will result in a grade of zero for that laboratory session. A student who is absent for three (3) labs, with any combination of excused and/or unexcused absences per course, will receive a failing laboratory grade. The laboratory is an integral part of the course. **You must earn a passing grade in the laboratory to pass the course.**

The penalty for late lab reports is a deduction of 10% to a maximum of 4 days.

See the lab ACORN page (CHEM 1010L A1-E1 CHEM 1013 LABORATORY [2019-20]) for more details.

Lab Manual, Glasses, and Gloves: Purchase from the Chemistry Club (Elliott Hall Lobby) September 4 – 14th, 12:30 – 1:30pm.

Lab Coats and Notebooks: Available at the Acadia University Bookstore.

Assignments

Due: Thursdays at 11:30pm (NO EXCEPTIONS)
via ACORN

Late assignments automatically receive a grade of zero. There are no exceptions, including illness or power failures. i.e. Do not wait until the last minute to work on the assignments!

Course Description

An introductory treatment of the fundamentals of chemistry: atoms, molecules, ions, chemical equations, stoichiometry, enthalpy, electronic structure and periodic properties of the elements, chemical bonding, and molecular structure, acids and bases, and gases.

Assessment will be by examination and submission of laboratory reports.

Topics

Unit 1: Fundamentals (Review)
Unit 2: Atomic Theory
Unit 3: Periodic Trends
Unit 4: Nuclear Chemistry
Unit 5: Lewis Structures
Unit 6: Intermolecular Forces
Unit 7: Bonding Theories
Unit 8: Organic Chemistry
Unit 9: Acids and Bases
Unit 10: Salts, Buffers, and Titrations
Unit 11: Gases

Learning Outcomes	
Knowledge and understanding	1. Proper use of significant figures 2. Unit analysis 3. Convert between mass and moles 4. Balance chemical reactions 5. Name compounds 6. Describe the Bohr model of the atom 7. Describe the quantum mechanical model of the atom 8. Write electron configurations 9. Describe periodic trends 10. Write Lewis structures 11. Predict the shape and properties of molecules 12. Name, draw, and identify functional groups of organic compounds 13. Calculate the pH of strong acids and bases 14. Perform equilibrium calculations of weak acids and bases 15. Perform equilibrium calculations of salts and buffers 16. Understand and use titration curves 17. Apply Gas Laws and Ideal Gas equation

OTHER DETAILS

Accessible Learning Services
If you have a documented disability and require support or accommodations, please contact Dr. Abu Kamara, Coordinator, Accessible Learning Services at 902-585-1291, abu.kamara@acadiau.ca or Marissa McIsaac, Disability Resource Facilitator at 902-585-1823, disability.access@acadiau.ca. Accessible Learning Services is located in Rhodes Hall.
Academic Integrity
It is your responsibility to acquaint yourself with the university policy on academic integrity. Academic dishonesty such as cheating and plagiarism are not tolerated. Any form of academic dishonesty in examinations, tests, labs, or assignments is subject to serious academic penalty. The full description of the penalties associated with academic dishonesty is outlined in the 2019/2020 Academic Calendar. • Cheating is copying or the use of unauthorized aids or the intentional falsification or invention of information in any academic exercise • Plagiarism is the act of presenting the ideas or words of another as one's own. Students are required to acknowledge and document the sources of ideas that they use in their written work. • Self-plagiarism is also a form of plagiarism. It is the presentation of the same work in more than one course without the permission of the instructors involved. • A student who knowingly helps another to commit an act of academic dishonesty is equally guilty. • Penalties are levied in relation to the degree of the relevant infraction. They range from failure on that piece of work, to failure in the course, to dismissal from the university.