

CHEM 1013: General Chemistry 1

September 21, 2020

Lectures			Location
Section 1013A1:	Amitabh Jha	M/W/F: 8:30am – 9:30am	ELL 207
Section 1013B1:	John Murimboh	M/W/F: 10:00am – 11:00am	ELL 207
Section 1013C1:	Cathy Murimboh	M/W/F: 11:30am – 12:30pm	ELL 207
Section 1013D1:	Nicoletta Faraone	M/W/F: 1:00pm – 2:00pm	ELL 207

Office Hours	Instructor	Email	Location
M: 1:30 – 4:30pm	Cathy Murimboh	catherine.murimboh@acadiau.ca	via Teams
T: 1:30 – 4:30pm	Nicoletta Faraone	nicoletta.faraone@acadiau.ca	via Teams
W: 2:00 – 5:00pm	John Murimboh	john.murimboh@acadiau.ca	via Teams
TH: 1:30 – 4:30pm	Amitabh Jha	amitabh.jha@acadiau.ca	via Teams

Chemistry Help Centre	Location
Mon/Tue/Wed.: 6:00 – 9:00 pm	ELL 303 and on Teams

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

Textbook
Chemistry: A Molecular Approach (3 rd 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%	
Self-check questions	5%	
Assignments	10%	Best 9 Assignments
Midterms	30%	Oct 15 th , Nov 5 th , Nov 26 th
Final Exam	35%	
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

1. We have a mandatory Intro to Chem Lab session during the first week of class (week of Sept. 21). You can join on any day no matter your lab section and attendance will be taken. If your time zone doesn't allow you to take part, please email me directly with your location.

Intro to Chem Lab meetings (all times AST):

- 4-5 pm Mon (Sept. 21)
- 4-5 pm Tues (Sept. 22)
- 4-5 pm Wed (Sept. 23)
- 4-5 pm Thurs (Sept. 24)
- 4-5 pm Fri (Sept. 25)

via Chem 1010 Labs Microsoft Teams Site.

2. All live communication this term (Intro to Chem Lab meeting, Ashley's office hours, TA help sessions) will be through the Chem 1010 Labs Team Site.

Please click on the link below to join:

<https://teams.microsoft.com/j/channel/19%3a4dcd0be6e916442392fa8ad5dd651cc7%40thread.tacv2/General?groupId=c0ad0762-48ed-4f3a-8d6d-920e181b20eb&tenantId=38b8ccee-acfd-40eb-972e-552d7cd548a3>

Instructor: ashley.parsons@acadiau.ca

Self-Check Questions

Due: Sundays, Tuesdays, Thursdays at 11:30pm (prior to each class) via ACORN

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 assignments, examination, and submission of laboratory reports.

Topics

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

Learning Outcomes	
Course objectives	<ol style="list-style-type: none"> 1. Communicate fundamental concepts in chemistry using appropriate vocabulary, units, symbols, and notations. 2. Apply chemical principles, scientific reasoning, and appropriate mathematical techniques to solve quantitative problems. 3. Explain real-world applications of chemistry (e.g. lake acidification, soap, bonding in DNA, etc.) in terms of fundamental chemical principles. 4. Analyze and interpret data collected in the laboratory.
Learning objectives	<ol style="list-style-type: none"> 1. Properly use and apply significant figures to calculations 2. Convert between metric units 3. Convert between mass and moles 4. Balance chemical reactions 5. Name compounds 6. Describe and apply the Bohr model of the atom 7. Describe and apply the quantum mechanical model of the atom 8. Write electron configurations of atoms and ions 9. Describe periodic trends of elements using the Periodic Table 10. Write Lewis structures 11. Predict the shape and properties of molecules 12. Calculate the pH of strong acids and bases 13. Perform equilibrium calculations of weak acids and bases 14. Perform equilibrium calculations of salts and buffers 15. Understand and use titration curves 16. Apply gas laws and the ideal gas equation

OTHER DETAILS

Accessible Learning Services
<p>If you are a student with documentation for accommodations or if you anticipate needing supports or accommodations, please contact Ian Ford, Accessibility Resource Facilitator at 902-585-1520, disability.access@acadiu.ca or Marissa McIsaac, Manager, disability.access@acadiu.ca. Accessible Learning Services is located in Rhodes Hall, rooms 111-115</p>
Academic Integrity
<p>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 2020/2021 Academic Calendar.</p> <ul style="list-style-type: none"> • 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 used 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 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.