

## COURSE OUTLINE Fall 2023

<b>Course:</b>	General Chemistry
<b>Course Code:</b>	SGC100
<b>Times &amp; Location:</b>	Online ZOOM Tutorial: Wednesdays 8 – 9 pm EST
<b>Course Coordinator:</b>	Dr. Melanie Facca, BSc, MS, ND
<b>Instructor:</b>	Dr. Melanie Facca, BSc, MS, ND
<b>E-mail:</b>	Moodle messaging on course home page
<b>Office Location:</b>	Online

### Evaluation:

	PERCENT	TEST DATE / DUE DATE
<b>Module Quizzes</b>	10%	10 Self-Scheduled Quizzes
<b>Assignments</b>	10%	2 Assignments - Assignment #1 deadline: December 6, 2023 - Assignment #2 deadline: December 6, 2023
<b>Participation</b>	10%	N/A
<b>Midterm Exam</b>	30%	<b>Wednesday October 18<sup>th</sup>, 2023</b>
<b>Final Exam</b>	40%	<b>Wednesday December 6<sup>th</sup>, 2023</b>

*Plagiarism and cheating are academic offenses and will be treated seriously by the College. Students should refer to the College's policies on academic misconduct posted on in the Academic Calendar. Students may seek guidance from a number of style manuals located in the CCNM library.*

### Required Text:

McMurray, Ballantine, Hoeger & Peterson. *Fundamentals of General, Organic and Biological Chemistry*: 2017, 8<sup>th</sup> Edition.). Published by Pearson.

**Course Description:**

General Chemistry (SGC100) is a three-credit, 14-week introductory course designed to introduce students to the fundamental concepts of chemistry. The course will emphasize the physical and chemical principles of chemistry relating to matter and its transformations including measurement, atoms and molecules, nuclear chemistry, ions, the mole, reaction stoichiometry, gases, solutions, and acids and bases.

The application of chemical fundamentals to naturopathic medicine is integrated throughout the course, providing students with a unique opportunity to learn chemistry within the context of naturopathic medicine. Incorporation of a virtual laboratory component enhances and reinforces material covered in the course and allows the student to experience a practical application of chemistry while maintaining the convenience of an online chemistry course.

**Prerequisites**

There are no prerequisite requirements for General Chemistry.

**Course Outcomes:**

On completion of the course the student will be expected to:

- Demonstrate a basic understanding of chemistry.
- Perform the calculations required of introductory chemistry.
- Demonstrate knowledge of the fundamental laws and vocabulary as they pertain to chemistry.
- Effectively read and communicate scientific information.
- Apply knowledge of chemistry to a clinical setting
- Demonstrate knowledge of the principles and process of the chemical experiment.

**Pedagogy:**

The course is delivered in a blended learning style which combines online self-study modules with weekly live interactive online tutorial sessions from 8 - 9 p.m. EST (one evening per week) with the course instructor.

**Evaluation:**

A passing grade is 60%. Evaluations/assessments will consist of: one quiz per module (10 total, 10%), course participation (10%), two assignments (10%), one midterm test (30%), and a final exam (40%).

## SGC100 General Chemistry

### Course Schedule

Class/ Week #	Date	Modules	Topic
1	Wednesday, September 6, 2023	Module 1	Introduction to course 1) Matter & Measurements
2	Wednesday, September 13, 2023	Module 2	2) Atoms & the Periodic Table
3	Wednesday, September 20, 2023	Module 3	3) Ionic Compounds
4	Wednesday, September 27, 2023	Module 4	4) Molecular Compounds
5	Wednesday, October 4, 2023	Module 5	5) Classification and Balancing Reactions
6	Wednesday, October 11, 2023	Study Week	Review
7	Wednesday, October 18, 2023	<b>Midterm Week</b>	<b>No Webinar</b> (Midterm covers Modules 1-5) 6) Chemical Reactions: Mole & Mass Relationships
8	Wednesday, October 25, 2023	Module 7	7) Chemical Reactions: Energy, Rates and Equilibrium
9	Wednesday, November 1, 2023	Module 8	8) Gases, Liquids and Solids
10	Wednesday, November 8, 2023	Module 9	9) Solutions
11	Wednesday, November 15, 2023	Module 10	10) Acids & Bases
12	Wednesday, November 22, 2023	Module 11	11) Nuclear Chemistry
13	Wednesday, November 29, 2023	Study Week	Review
14	Wednesday, December 6, 2023	<b>Final Exam Week</b>	<b>No Webinar</b> (Final Exam is <i>cumulative</i> )

*The Academic Department reserves the right to make schedule changes.*

## **SGC100 General Chemistry Session Learning Outcomes**

### **Tutorial #1: Week 1**

#### **Introduction to SGC100 General Chemistry**

By the end of this session, the student will be able to:

- Navigate Moodle SGC100 course shell and ZOOM programs
- Understand course requirements, including textbook readings, evaluations and deadlines
- Begin Module 1

*Deadline: Post a brief introduction on "Please introduce yourself" forum before the start of the tutorial.*

### **Tutorial #2: Week 2**

Module 1: Matter & Measurements

*Deadline: Complete Module 1 before the start of the tutorial.*

### **Tutorial #3: Week 3**

Module 2: Atoms and the Periodic Table

*Deadline: Complete Module 2 before the start of the tutorial.*

### **Tutorial #4: Week 4**

Module 3: Ionic Compounds

*Deadline: Complete Module 3 before the start of the tutorial.*

### **Tutorial #5: Week 5**

Module 4: Molecular Compounds

*Deadline: Complete Module 4 before the start of the tutorial.*

### **Tutorial #6: Week 6**

Module 5: Classification & Balancing of Chemical Reactions

*Deadline: Complete Module 5 before the start of the tutorial.*

**Week 7 \*There is no tutorial the week of the midterm. The midterm covers modules 1-5 inclusive.**

**Tutorial #7: Week 8**

Module 6: Chemical Reactions: Mole and Mass Relationships

*Deadline: Complete Module 6 before the start of the tutorial.*

**Tutorial #8: Week 9**

Module 7: Chemical Reactions: Energy, Rates & Equilibrium

*Deadline: Complete Module 7 before the start of the tutorial.*

**Tutorial #9: Week 10**

Module 8: Gases, Liquids & Solids

*Deadline: Complete Module 8 before the start of the tutorial.*

**Tutorial #10: Week 11**

Module 9: Solutions

*Deadline: Complete Module 9 before the start of the tutorial.*

**Tutorial #11: Week 12**

Module 10: Acids & Bases

*Deadline: Complete Module 10 before the start of the tutorial.*

**Tutorial #12: Week 13**

Module 11: Nuclear Chemistry

*Deadline: Complete Module 11 before the start of the tutorial.*

**Week 14\* There is no tutorial the week of the Final Exam (the final exam is cumulative).**