

Course ID:	Course Title:	Fall 2018
CHE 101	General Chemistry I	Prerequisite:
		Credits: 3

Class Information		Instructor Information		Important Dates	
Days:	W & F	Instructor:	Dr. Liza Abraham(Lecture) Dr. Rashid Khan (Lab)	First day of classes:	Wed., Sept. 5
Time:	9:45-11:00	Email:	labraham@ambrose.edu rashid.khan@ambrose.edu	Last day to add/drop, or change to audit:	Sun, Sept 16
Room:	A 2133	Phone:	(403) 410-2000 ext. 6921	Last day to request revised exam:	Mon, Oct. 22
Lab/ Tutorial:	M 11:00-2:00 2:30-5:30 8:00-11:00	Office:	A2160	Last day to withdraw from course:	Mon, Nov 12
		Office Hours:	open door policy	Last day to apply for coursework extension:	Mon, Nov 19
Final Exam:	W December 12 1:00- 4:00 Airhart			Last day of classes:	Tue, Dec 11

Course Description

This course looks at atomic and molecular structure; it examines the elements and chemistry of the periodic table, bonding, and the basis of chemical reactions.

Expected Learning Outcomes

Students should come out of this course being able to:

- Draw Lewis structures, resonance structures, VSEPR diagrams, Line drawings ,electronic geometry, molecular shape and Identify polar and non-polar bonds molecules
- Explain VB and MO Theories, Draw the σ and π overlaps, Determine hybridization, and Draw MO diagrams
- Recognize Chiral Carbons, Draw constitutional, conformational, geometric and optical isomers
- Identify the intermolecular forces, predict relative melting points, boiling points, and solubility.
- Identify functional groups; Identify site of reactivity, and explain bond breaking and bond making through curly arrow mechanisms

Textbook: <https://www.openstaxcollege.org/textbooks/chemistry> (available in electronic form), and the Student Solutions Manual (available online).

Course Schedule: (Tentative Lecture / Tutorial / Laboratory Schedule)

Week of	Lecture	Tutorial	Lab
Sep 3	Introduction to the course Electronic Structure and Periodic properties of Elements	No tutorial	No Lab
Sep 10	Electronic Structure and Periodic properties of Elements	Tutorial 1 / Quiz 1	No Lab
Sep 17	Electronic Structure and Periodic properties of Elements	No Tutorial	Lab 1: Mass percent of Acetic Acid
Sep 24	Chemical Bonding and Molecular Geometry <u>Assignment 1 and 2 are due in Class</u> Oct 2-Oct 3 Spiritual Emphasis days (no class)	No Tutorial	September 28
Oct 1	Chemical Bonding and Molecular Geometry	Tutorial 2/ Quiz 2	No Lab
Oct 8	Chemical Bonding and Molecular Geometry Oct 8 Mon Thanksgiving: No class Term Test 1 Oct 10	No Tutorial	No Lab
Oct 15	Chemical Bonding and Molecular Geometry	No Tutorial	Lab 2: Determination of Ascorbic Acid Content in Vitamin C Tablet
Oct 22	Advanced Theories of Covalent Bonding	Tutorial 3/Quiz 3	No Lab
Oct 29	Advanced Theories of Covalent Bonding	No Tutorial	Lab 3: Dry Lab_ Lewis Structures & VSEPR diagrams
Nov 5	Advanced Theories of Covalent Bonding Nov.5-9, M-F (mid-semester break; no classes)	No Tutorial	No Lab
Nov 12	Intermolecular Forces; Term Test 2 Nov.14	No Tutorial	Lab 4: Synthesis of Aspirin
Nov 19	Intermolecular Forces	Tutorial 4/ Quiz 4	No Lab
Nov 26	Organic Chemistry	No Tutorial	Lab 5: Structure and Physical Properties of Compounds
Dec 3	Organic Chemistry December 5: Assignment 3 is due in class	Tutorial 5/Quiz 5	No Lab
Dec 10	Final Exam :Wednesday, December 12 (1:00-4:00)	Tutorial: Final Exam Review	No Lab

Grading Assessments:

In determining the overall grade in the course the following weights will be used:

Laboratory Experiments	25%
Tutorial Quizzes	10%
Assignments	5%
Term Test 1 & Term test 2	30%
Final Examination	30%

Grade Summary:

The available letters for course grades are as follows:

<u>Letter Grade</u>	<u>Description</u>
A+	
A	Excellent
A-	
B+	
B	Good
B-	
C+	
C	Satisfactory
C-	
D+	
D	Minimal Pass
F	Failure

A+	A	A-	B+	B	B-
95% - 100%	87% - 94.99%	82% - 86.99%	77% - 81.99%	72% - 76.99%	66% - 71.99%

C+	C	C-	D+	D	F
62% - 65.99%	58% - 61.99%	54% - 57.99%	50% - 53.99%	45% - 49.99%	< 44.99%

Because of the nature of the Alpha 4.00 system, there can be no uniform University-wide conversion scale. The relationship between raw scores (e.g. percentages) and the resultant letter grade will depend on the nature of the course and the instructor's assessment of the level of each class, compared to similar classes taught previously.

Please note that final grades will be available on student registration system. Printed grade sheets are not mailed out.

Requirements:

- All students registered in CHE 101 are expected to take the *WHMIS 2015* quiz and pass with a percentage of at least 80 before engaging in lab activities. You are permitted to re-take the quiz this as many times as necessary. Students have not passed a version of this quiz by the time of their first lab will not be allowed to partake in the lab activity and will take a zero for anything from that lab that is marked. Students need to complete the quiz by Friday, September 7. Here is the link to the Moodle site; <https://moodle.ambrose.edu/course/view.php?id=2576>
- Chapters 1 to 4 review high school material and, therefore, are expected pre-requisite material.
- Labs and tutorials are mandatory. You must provide a doctor's note, if you need to miss one for health reasons.
- Complete the Pre-lab quizzes and hand it in to the Lab Instructor before start of each lab.
- Students must wear appropriate laboratory attire to perform experiments in the lab reasons.
- Maintain a lab notebook and record everything in your notebook. Attach the pages to worksheets and reports for grading.
- Among the five labs, three will be worksheets and two will be formal lab reports. Worksheets are due at the end of the lab. Formal lab reports are due next week at the beginning of the tutorial.
- The grade for each experiment will be based on your pre-laboratory assignment, maintaining a lab notebook, your performance in the laboratory, and the required experimental report.
- Students work in groups for the tutorial and at the end of every tutorial there will be an individual quiz. Questions for the quiz can be similar to the tutorial or from the lecture notes.
- There are three assignments in this course; two of them are required to complete on or before September 28. These assignments involves review of high school chemistry and it which will not be covered in this course. The third assignment will be on creating a concept map of everything you have learned in the course. You will lose 10% day for late submission; no submission after 5 days including weekends.
- Final exam is cumulative. During exams and course work students are allowed to use only non-programmable calculators. You are not allowed to use phone as your calculator.
- Class participation is extremely important to your learning in this course. If you miss any class please make sure to complete the notes from your peers.
- A mark of less than 50% in the laboratory component and submission of fewer than three laboratory experiments will result in a final grade of no greater than D. A grade of D does not satisfy the pre-requisite requirements for further chemistry courses or admission to programs in Biology.
- Arrive to lecture, lab and tutorial on time; you will not be permitted in the lab if you miss the pre-lab talk

In respect to the professor and to your fellow students, we ask that you:

- a) Turn your phone off during class and that you don't use it for texting during lecture or lab;
- b) Not have conversations with the people beside you during lecture – it is very distracting to the people around you;
- c) Use your laptops for lecture material and assignments only – that you are not using the internet or Facebook during class time;
- e) Don't listen to music in class or lab. These will help to maximize the learning experience for you and your fellow students (and will keep your professor in a good mood).

Ambrose University Academic Policies:

Communication

All students have received an Ambrose e-mail account upon registration. It is the student's responsibility to check this account regularly as the Ambrose email system will be the professor's instrument for notifying students of important matters (cancelled class sessions, extensions, requested appointments, etc.) between class sessions. If students do not wish to use their Ambrose accounts, they will need to forward all messages from the Ambrose account to another personal account.

Registration

During the **Registration Revision Period** students may enter a course without permission, change the designation of any class from credit to audit and /or voluntary withdraw from a course without financial or academic penalty or record. Courses should be added or dropped on the student portal by the deadline date; please consult the List of Important Dates. After that date, the original status remains and the student is responsible for related fees.

Students intending to withdraw from a course after the Registration Revision Period must apply to the Office of the Registrar by submitting a "Request to Withdraw from a Course" form or by sending an email to the Registrar's Office by the **Withdrawal Deadline**; please consult the List of Important Dates on the my.ambrose.edu website. Students will not receive a tuition refund for courses from which they withdraw after the Registration Revision period. A grade of "W" will appear on their transcript.

Students wishing to withdraw from a course, but who fail to do so by the applicable date, will receive the grade earned in accordance with the course syllabus. A student obliged to withdraw from a course after the Withdrawal Deadline because of health or other reasons may apply to the Registrar for special consideration.

Exam Scheduling

Students, who find a conflict in their exam schedule must submit a Revised Examination Request form to the Registrar's Office by the deadline date; please consult the List of Important Dates. Requests will be considered for the following reasons only: 1) the scheduled final examination slot conflicts with another exam; 2) the student has three final exams within three consecutive exam time blocks; 3) the scheduled final exam slot conflicts with an exam at another

institution; 4) extenuating circumstances. Travel is not considered a valid excuse for re-scheduling or missing a final exam.

Electronic Etiquette

Students are expected to treat their instructor, guest speakers, and fellow students with respect. It is disruptive to the learning goals of a course or seminar and disrespectful to fellow students and the instructor to use electronics for purposes unrelated to the course during a class session. Turn off all cell phones and other electronic devices during class. Laptops should be used for class-related purposes only. Do not use iPods, MP3 players, or headphones. Do not text, read, or send personal emails, go on Facebook or other social networks, search the internet, or play computer games during class. Some professors will not allow the use of any electronic devices in class. The professor has the right to disallow the student to use a laptop in future lectures and/or to ask a student to withdraw from the session if s/he does not comply with this policy. Repeat offenders will be directed to the Dean. If you are expecting communication due to an emergency, please speak with the professor before the class begins.

Academic Policies

It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Academic Calendar. Personal information (information about an individual that may be used to identify that individual) may be required as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at privacy@ambrose.edu.

Extensions

Although extensions to coursework in the semester are at the discretion of the instructor, students may not turn in coursework for evaluation after the last day of the scheduled final examination period unless they have received permission for a course Extension from the Registrar's Office. Requests for course extensions or alternative examination time must be submitted to the Registrar's Office by the deadline date; please consult the List of Important Dates. Course extensions are only granted for serious issues that arise "due to circumstances beyond the student's control."

Appeal of Grade

An appeal for change of grade on any course work must be made to the course instructor within one week of receiving notification of the grade. An appeal for change of final grade must be submitted to the Registrar's Office in writing and providing the basis for appeal within 30 days of receiving notification of the final grade, providing the basis for appeal. A review fee of \$50.00 must accompany the appeal. If the appeal is sustained, the fee will be refunded.

Academic Integrity

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Academic dishonesty is taken seriously at Ambrose University as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else's ideas, words, or work as one's own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets to acknowledge to another person's ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university college. Students are expected to be familiar with the policies in the current Academic Calendar that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean and become part of the student's permanent record.

Note: Students are strongly advised to retain this syllabus for their records.