

# General Chemistry I Lecture (CHEM 1311 3A1)

## CREDIT

3 SCH, Semester Credit Hours (3 hours lecture, 0 hours lab)

## MODE OF INSTRUCTION

Face to Face

## PREREQUISITE/CO-REQUISITE:

Prerequisite: MATH 1314, College Algebra (3 SCH version) or equivalent academic preparation

Corequisite: CHEM 1111, General Chemistry I Lab

High school chemistry is strongly recommended

## COURSE DESCRIPTION

Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry.

## COURSE OBJECTIVES

Upon completion of this course, the student will be able but not limited to:

- Define the fundamental properties of matter (mass, volume, and density...)
- Classify matter, compounds, and chemical reactions.
- Determine the basic nuclear and electronic structure of atoms.
- Identify trends in chemical and physical properties of elements using the periodic table.
- Describe the bonding in and the shape of simple molecules and ions.
- Solve stoichiometric problems.
- Write chemical formulas.
- Write and balance equations.
- Use the rules of nomenclature to name chemical compounds.
- Define the types and characteristics of chemical reactions.
- Identify general characteristics of organic compounds.

In addition to the course objectives above, the student will also develop the following:

- Critical Thinking Skills (CT) - creative thinking, innovation, inquiry and analysis, evaluation and synthesis of information.
- Communication Skills (COM) – effective development, interpretation and expressions of ideas through written, oral, and visual communication.
- Empirical and Quantitative Skills (EQS) – manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
- Teamwork (TW) – ability to consider different points of view and to work effectively with others to support a shared purpose or goal.



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## INSTRUCTOR CONTACT INFORMATION

Instructor: Conor Smith

Email: [casmith4@lit.edu](mailto:casmith4@lit.edu)

Office Phone: (409)247-4871

Office Location: MPC 238

Office Hours:	Monday	9:00 am	–	5:30 pm
	Tuesday	12:00 pm	–	9:00 pm
	Wednesday	9:00 am	–	5:30 pm
	Thursday	12:00 pm	–	7:30 pm
	Friday	9:00 am	–	2:30 pm

Preferred contact: Blackboard message or email

## REQUIRED TEXTBOOK AND MATERIALS

Required Textbook – OpenStax, Chemistry 2<sup>nd</sup> edition

ALEKS Chemistry – General Chemistry, First Semester

Scientific calculator

## ATTENDANCE POLICY

Attendance is recorded in Starfish but does not count towards the overall grade.

## DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process.

If you stop coming to class and fail to drop the course, you will earn an “F” in the course.

## COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- ALEKS Homework 25 %
- Common CORE Assignment 20 %
- Tests (3 Tests, 10 % each) 30 %
- Final Exam 25 %

## GRADE SCALE

- 90-100 A
- 80-89 B
- 70-79 C
- 60-69 D
- 0-59 F

**COURSE CALENDAR – CHEM 1311 3A1, Spring 2025**

DATE	TOPIC	READINGS (OpenStax, 2e)	ASSIGNMENTS	Due Date
Jan 20 – Jan 26	Chapter 1: Essential Ideas	CH 1.1 – 1.6	CH 1 ALEKS Assignments	1/26
Jan 27 - Feb 2	Chapter 2: Atoms, Ions & Molecules	CH 2.1 – 2.7	CH 2 ALEKS Assignments	2/9
Feb 3 – Feb 9				
Feb 10 – Feb 16	Chapter 3: Chemical Composition	CH 3.1 – 3.4	CH 3 ALEKS Assignments <b>Test 1: CH 1-3</b>	2/16 2/17
Feb 17 – Feb 23	Chapter 4: Reaction Stoichiometry	CH 4.1 – 4.5	CH 4 ALEKS Assignments	3/2
Feb 24 – Mar 2				
Mar 3 – Mar 9	Chapter 5: Thermochemistry	CH 5.1 – 5.3	<b>CORE Assignment: Compound &amp; Equation</b>	<b>3/16</b>
Mar 10 – Mar 16	<b>Spring Break</b>			
Mar 17 – Mar 23	Chapter 5: Thermochemistry	CH 5.1 – 5.3	CH 5 ALEKS Assignments	3/23
Mar 24 – Mar 30	Chapter 6: Electronic Structure	CH 6.1 – 6.5	CH 6 ALEKS Assignments <b>Test 2: CH 4-6</b>	4/6 4/7
Mar 31 – Apr 6				
Apr 7 – Apr 13	Chapter 7: Chemical Bonding	CH 7.1 – 7.6	CH 7 ALEKS Assignments	4/13
Apr 14 – Apr 20	Chapter 8: Advanced Chemical Bonding	CH 8.1 – 8.4	CH 8 ALEKS Assignments <b>CORE Assignment: Submission &amp; Discussion</b>	4/20 4/21
Apr 21 – Apr 27	Chapter 9: Gases	CH 9.1 – 9.5	CH 9 ALEKS Assignments <b>Test 3: CH 7-9</b>	5/4 5/5
Apr 28 – May 4				
May 5 – May 11	Review & Final Exams	All Chapters	<b>Final Exam: All Chapters</b>	5/12
May 12 – May 15				

## **TECHNICAL REQUIREMENTS**

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

## **DISABILITIES STATEMENT**

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email [specialpopulations@lit.edu](mailto:specialpopulations@lit.edu). You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

## **STUDENT CODE OF CONDUCT STATEMENT**

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at [www.lit.edu](http://www.lit.edu). Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

## **ARTIFICIAL INTELLIGENCE STATEMENT**

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses

## **STARFISH**

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and

information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

### **ADDITIONAL COURSE POLICIES/INFORMATION**

Each chapter has assigned topics and homework problems through ALEKS. If you experience any issues with ALEKS, look over the materials in the course information folder and, if none of these fixes work, contact me so that we can find a solution.

All late work will be subjected to a late penalty (10 % for assignments, 20 % for the final exam) unless in exceptional circumstances with evidence (e.g. doctor's note).

It shall be considered a breach of academic integrity to collaborate with other students during any/all examinations completed throughout the class (i.e. complete tests/questions as a group). Examinations cannot be submitted after correct answers are revealed to the class to ensure academic integrity.

1st Offense: The student will receive a grade of zero (0) for the exam which will count towards the student's class average and there will be NO MAKEUP of the test.

2nd Offense: The student will be removed from the class and will receive a failing grade (F) for the entire lecture and lab grade.

Students with specific accommodations, needs, or medical/personal emergencies should communicate with their instructor regarding individual exceptions/provisions. It is the student's responsibility to communicate such needs to the instructor.