Introductory Chemistry I Lecture (CHEM 1306 2B1)

COURSE TITLE (SUBJ NMBR SEC)

LAMAR INSTITUTE OF TECHNOLOGY

INSTRUCTOR CONTACT INFORMATION

Instructor: Dr. Rama Devarakonda
Email: rdevarakonda@lit.edu
Office Phone: (409)247-4871
Office Location: MPC 213

Office Hours: Tuesday: 12.30 pm to 5.30 pm
Wednesday, Thursday - 2.30 pm to 5.30 pm

Preferred contact: Blackboard message or email

CREDIT

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

MODE OF INSTRUCTION

Face to Face

PREREQUISITE/CO-REQUISITE:

Co- requisite: CHEM 1106 (lab course)

COURSE DESCRIPTION

Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and Allied health students.

COURSE OBJECTIVES

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

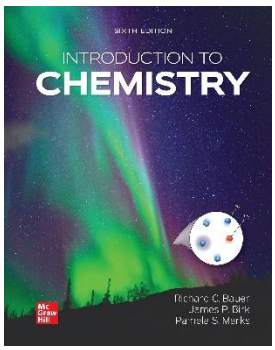
- Define the fundamental properties of matter (mass, volume, and density)
- Classify matter, compounds, and chemical reactions.
- Determine the basic nuclear and electronic structure of atoms.
- Identify trends in chemical and physical properties of elements using the periodic table.
- Describe the bonding 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.

CORE OBJECTIVES

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.

REQUIRED TEXTBOOK AND MATERIALS



Required Textbook – Bauer, Introduction to Chemistry 6th edition
Supplementary Textbook – OpenStax, Chemistry 2nd edition
ALEKS Chemistry – Introductory College Chemistry
Scientific calculator

ATTENDANCE POLICY

Attendance is recorded in Starfish and is part of your garde.

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 and Video Quizzes Homework	30%
Common CORE Assignment	20%
Chapter Quizzes	30%
Final Exam	20%

LETTER GRADE

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

TENTATIVE COURSE CALENDAR – CHEM 1306 Spring 2026 F2F

WEEKS	TOPIC AND READING Textbook (Bauer, 6e)	ASSIGNMENTS	DUE DATES	CHAPTER QUIZZES
1 01/20- 01/30	Module 1: Matter & Energy Chapter 1 (1.1 – 1.4)	Module 1 ALEKS Homework Assignments	02/08	
2 01/26 - 02/01 3 02/02- 02/08	Module 2: Atoms, Ions & The Periodic Table Chapter 2 (2.1- 2.5)	Module 2 ALEKS Homework Assignments	02/08	Mod 1 Quiz Mod 2 Quiz
4 02/09 – 02/15	Module 3: Chemical Compounds Chapter 3 (3.1- 3.7)	Module 3 ALEKS Homework Assignments	02/15	Mod 3 Quiz
5 02/16 - 02/22 6 02/23 - 03/01	Module 4: Chemical Composition Chapter 4 (4.1- 4.4)	Module 4 ALEKS Homework Assignments	03/01	Mod 4 Quiz
7 & 8 03/02 – 03/15 9 03/16 - 03/22	Module 5: Chemical Reactions and Stoichiometry Chapter 5 (5.1- 5.5) Chapter 6 (6.1-6.7) Spring break	Module 5 ALEKS Homework Assignments	03/22	Mod 5 Quiz
10 03/23 – 03/29 11 03/30 – 04/05	Module 6: Electronic Structure of Atom and Chemical Bonding Chapter 7 (7.1- 7.6) Chapter 8 (8.1- 8.5)	Module 6 ALEKS Homework Assignments	03/29	Mod 6 Quiz
12 04/06 - 04/12	Module 7: Gases Chapter 9 (9.1-9.4)	Module 7 ALEKS Homework Assignments	04/12	Mod 7 Quiz
13 04/13 – 04/19	Module 8: Solutions Chapter 11 (11.1- 11.4)	Module 8 ALEKS Homework Assignments	04/19	Mod 8 Quiz
14 04/20 -04/26	Module 9: Acids & Bases Chapter 13 (13.1-13.5)	Module 9 ALEKS Homework Assignments	04/26	Mod 9 Quiz
15 04/27 - 05/03	Module 10: Organic Chemistry Chapter 16 (16.1- 16.9)	Module 10 ALEKS Homework Assignments	05/10	
16 05/04 - 05/10	**Finals (comprehensive Exam on all Modules)**			

CORE ASSIGNMENT: (Group Presentation) Due dates

- Get into a group – 02/07
- Select a topic (compound) – 02/14
- Start the Presentation (must be done individually and later shared among group members)
    - Introduction – 02/ 28
    - Uses - 03/ 14
    - Safety -03/28
    - Stoichiometry – 04/ 11
- **Submit your group Presentation – 04/25**

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. 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. 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.

INSTRUCTOR GUIDELINES AND POLICIES ADDENDUM

How to be Successful in this Course:

This is simple. (O-D-T)

1. **Organized Time Management** – You must be able to balance your time dedicated to this class (apprx. 2-4 hours a day). Science courses demand a much larger amount of your time than other courses.
2. **Disciplined Independent Studying** – This course does have face-to-face class lectures as featured in traditional college courses. You must be able to study independently and effectively. This includes being proactive and communicating with the instructor for assistance when coming across problems with understanding the material.
   Online assignments: You will be covering approximately 1 - ½ chapter each week. Each chapter includes a variety of online assignments which must be completed within specified deadlines.
3. **Technology Competence** – You must have a basic understanding of computers and internet usage. You must be able to independently navigate the LIT learning management system (blackboard) and the McGraw-Hill Aleks publisher website used in this course. I have provided you with resources if you need assistance in learning the navigation of these resources.

<u>What You Need To Understand About Taking A Science Course Online</u> :

1. **This is a science class**. In general, science classes are more time-consuming and require more extensive studying and preparation due to the complexity of the material.
2. **This is an online class**. You need to attend to announcements regarding the content of each module for proper understanding and working diligently to be successful.
3. **This is also an independent study class.** While students think online classes will be less rigorous and convenient, they forget the fact that this format will require studying independently (on your own) also, with the support of material provided by the instructor.
4. **You have chosen to enroll in 1) a science course and 2) an online class**. If you don't have disciplined study practices and excellent time management skills, you will be at a disadvantage in this course as this is a science course and online.
5. **I do monitor your progress** (or lack of) weekly. If you fall behind with the assignment deadlines, stop completing coursework, demonstrate the inability to pass assessments and lab quizzes you will be withdrawn from the class due to a lack of progress.
6. **Procrastination** = **Failure**. If you procrastinate and do not make this course a top priority in your daily schedule you will not successfully pass this class. It's that simple.

Time Management: You must be able to balance your time dedicated to this class (3-4 hours a day).

Attendance: As this is an online class, you must log into Blackboard, complete Introductions -on padlet, register on Aleks(publisher platform) and complete the Chapter 1 HW assignment by Sunday midnight in the 1st week of the semester.

Communication: The best way to reach me is by messaging through Blackboard or email. You will generally get a response within 24-48 business hours. If you don't get a response within that time frame, please email again.

Late Work: Late work is not accepted, unless in exceptional circumstances with evidence (e.g. doctor's note). Any assignment not submitted by the due date will receive a 0 grade, unless prior arrangements are approved by the instructor.

Make-up Assessments: No make-up assignments, assessments, quizzes and Finals will be administered.

About the Course: Each Module has assigned Topics and homework problems through ALEKS (publisher platform- MacGraw- Hill). If you experience any issues with ALEKS, look over the materials in the course information folder and, if none of these fix's work, contact me so that we can find a solution. Enrolling on Publisher platform soon will give you access to the etextbook and Homework assignments and Module topics.

Accommodations: Students with specific accommodation, 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.

Exams: Exams/ Quizzes in this course are administered through Blackboard.

Exams taken online will be administered with Respondus **LockDown Browser + Monitor (webcam)**

Requirements to take exams include:

- A reliable computer, desktop or laptop (**phones, chromebooks, tablets, and iPads are not allowed).**
- Windows: 10, 8, 7
- Mac: OS X 10.10 or higher
- Adobe Flash Player (bundled with the LockDown Browser installation)
- Web camera (internal or external) & microphone
- A reliable internet service provider. A broadband internet connection.
- A room to take the exam where you are alone (other individuals in the room are not allowed)

Download Instructions:

- Select the quiz in the course
- Under Quiz Requirements you will see "To take this quiz you must use the Respondus LockDown Browser"
- Below this will appear: "You can use the button below if you have not already downloaded LockDown Browser". Click the button to go to the download page and then follow the instructions
- Use the link to download Respondus LockDown Browser to your computer; follow the installation instructions
- Return to the Quiz page in Brightspace (it may still be open in another tab) and select the quiz
- Select "Launch LockDown Browser"
- The quiz will now start

Respondus LockDown Browser and Monitor Academic Integrity Policy

Lamar Institute of Technology
Healthcare and Sciences Courses
Lamar Institute of Technology expects every student to uphold honesty and integrity in all academic work. Academic dishonesty is a violation of the LIT Student Rights and

Responsibilities policy and may result in disciplinary action. All online examinations that use Respondus LockDown Browser or similar proctoring tools are subject to these rules.

While the faculty do not presume or accuse students of academic misconduct, certain behaviors and system flagged events have historically been associated with violations of academic integrity. Based on institutional experience and best practices, it is necessary to provide students with a clear list of responsible actions that are expected during all proctored online assessments.

Expectations During Respondus Exams

Respondus LockDown Browser records a continuous video from the required environment check through exam submission. This recording includes your webcam video, screen activity, and mouse movement. The system flags may include (not an exhaustive list): missing from or obstructed camera view, background noise, or technical concerns. Instructors are able to review each flagged incident as well as the full exam recording. Students are expected to comply with the following requirements during all online examinations that use Respondus LockDown Browser or similar proctoring tools.

- Students must remain fully visible within the webcam frame for the entire exam period. The full face and upper torso must be visible at all times.
- Students must not obstruct, cover, mute, disable, or otherwise interfere with webcam or audio monitoring.
- Students must be seated at a desk or table in a well-lit room and may not lie down during the exam. If a laptop is placed on the student's lap, the student is responsible for proper camera positioning.
- Students must complete the exam alone. No other individuals may be present in the room.
- There must be no television, radio, or other background noise. While occasional uncontrollable sounds may occur, the exam may not be paused, and the student may not leave the camera view.
- A required environment check must include a complete 360-degree view of the surrounding area and a clear view of the entire desktop or table surface being used. If a fixed camera cannot be moved, a mirror may be used.
- Students may not use cell phones, smart watches, headphones, earbuds, meta glasses, second monitors, recording devices, or any other unauthorized materials.
- Hats, sunglasses, and face coverings are not permitted. Hooded garments may not be pulled over the forehead or obscure the face.
- Students may not look off screen, out of view, or downward for extended periods unless an approved calculator, textbook, or notes are permitted and clearly displayed during the environment check.
- If a textbook or notes are permitted, evidence must be provided during the environment check that no additional materials are accessible.

- If scrap paper is permitted, all written work related to exam questions must be shown to the camera as directed. Required uploads of written work must be submitted to Blackboard within 24 hours of exam completion, unless otherwise instructed.
- Students may not talk, whisper, mouth words, or read questions aloud during the exam.
- Students may not attempt to open new browser windows, external websites, or outside applications.
- Repeated or extended absence of the student's face from the camera view, particularly after an on-screen warning, is not permitted.
- Movements or behaviors consistent with the use of a phone, second device, or outside assistance are not permitted.
- Audio or visual indicators suggesting outside assistance are not permitted.
- Copying, recording, photographing, or sharing exam questions or answers before, during, or after the exam is prohibited.

Any action that violates the rules listed above or that shows an attempt to obtain an unfair advantage will be treated as academic misconduct. The instructor will review all Respondus recordings and reports. If concerning behavior is found, the instructor will determine the appropriate level of action based on the strength of the evidence. The instructor may request a meeting, either in-person or via Teams, to review the exam content with you to ascertain your level of knowledge. You must schedule a meeting with the instructor within 5 business days if you wish to refute their findings. If you do not respond within 5 business days, the grade will not be changed.

<u>Level One: Minor Irregularity</u>
Examples:
Lingering off screen glances (in directions other than a calculator or scratch worksheet), minor webcam glitch, light noise (examples include baby crying, dog barking, doorbell ringing) or audio interference
Result:
Warning and no point deduction

<u>Level Two: Moderate Concern</u>
Examples:
Extended off-screen glances, unclear hand movements, failure to complete an environment check, other people or voices heard within the room, scrap work that is not consistent with the exam questions and/or behavior that raises reasonable suspicion
Result:
20% percent deduction on the exam for each violation

<u>Level Three: Confirmed Academic Misconduct</u>
Examples:

Blatant use of an unauthorized device, receiving outside assistance, attempting to open new applications, use of unauthorized notes or materials
Result:
A grade of Zero (0) on the exam

Level Four: Severe or Repeated Violations
Examples:
Multiple incidents within the course, deliberate attempts to avoid monitoring
Result:
Zero (0) on the exam and referral to Student Services for disciplinary review

All cases of academic dishonesty may result in additional actions as permitted by the LIT Student Rights and Responsibilities policy, which may include course failure, notification sent to all selective programs, or other institutional sanctions depending on severity and recurrence.