INTRODUCTORY CHEMISTRY I LAB (CHEM 1106 Online)

LAMAR INSTITUTE OF TECHNOLOGY

INSTRUCTOR CONTACT INFORMATION

Instructor: Dr. Rama Devarakonda

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Office Phone: (409)247-4871

Office Location: MPC 213

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

Preferred contact: Blackboard message or email

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

MODE OF INSTRUCTION
Online

PREREQUISITE/CO-REQUISITE:
Prerequisite:
Co-requisite: CHEM 1306 Introductory Chemistry I (Lecture)

Core Applicability: Life & Physical Sciences

COURSE DESCRIPTION
Survey Course introducing chemistry. Topics 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:
- Use basic apparatus and apply experimental methodologies used in the chemistry laboratory.
- Demonstrate safe and proper handling of laboratory equipment and chemicals.
- Conduct basic laboratory experiments with proper laboratory techniques.
- Make careful and accurate experimental observations.
- Relate physical observations and measurements to theoretical principles.
- Interpret laboratory results and experimental data and reach logical conclusions.

- Record experimental work completely and accurately in laboratory notebooks and communicate experimental results clearly in written reports.
- Design fundamental experiments involving principles of chemistry.
- Identify appropriate sources of information for conducting laboratory experiments involving principles of chemistry.

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

Online Access to Aleks (Mc Garw Hill Publisher) through Blackboard
Required Textbook – Bauer, Introduction to Chemiostry,6th Edition
Supplementary Textbook -OpenStax, Chemistry 2nd edition
Scientific calculator
Webcam

ATTENDANCE POLICY

Completing your labs regularly on weekly basis is required.

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.

GRADE DETERMINATION

Final grades will be calculated according to the following criteria:

Virtual labs and Lab Safety Agreement	60 %
Common CORE Assignment	20 %
Mid Term and Final Exam	20 %

LETTER GRADE

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

Tentative Lab Schedule for Fall 2025 (Online)

Weeks	Labs	Due date for submission
1 08/25- 08/31	Lab 0 Chemistry Virtual lab Tutorial Lab 1: Lab safety – Personal Safety	09/07
2 09/01 - 09/07	Lab 2: Scientific method Lab 3: Lab Skills – Using a Balance Lab 4 Lab Skills – Ruler	09/07
3 09/08- 09/14	Lab 5: Lab Skills – Graduated Cylinder Lab 6: Lab Skills- Using a pipet	09/14
4 09/15 - 09/21	Lab 7: Density- Density of Plastic Cubes	09/21
5 09/22 - 09/28	Lab 8: Solubility – Qualitative Analysis	09/28
6 09/29 - 10/05	Lab 9: Reactions- Reactions in Solutions Lab 10: Reactions - Reactions in Solutions (Balancing Equations)	10/05
7 10/06 – 10/12	Lab 11: Copper Sulphate Hydrate analysis (lab) -YouTube Video	10/12
8 10/13 - 10/19	Lab 12: Stoichiometry – Synthesis of Calcium Carbonate	10/19
9 10/20 – 10/26	Lab 13: Molecular Models -VSEPR	10/26
10 10/27 – 11/02	Lab 14: Gas Laws: Ideal Gas Constant	11/02
11 11/03 - 11/09	Lab 15: Gas Laws: Diffusion and Graham's Law	11/09
12 11/10 – 11/16	Lab 16: Titration – Concentration of Vinegar	11/16
13 11/17 – 11/23	Lab 17: pH- Antacids	11/23
14 11/24 - 11/30	Thanksgiving week	

15 12/01 - 12/07	Core Assignment Submission	12/07
16 12/08- 12/14	Finals (comprehensive exam on labs)	You have done it! Celebrate!

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/INFORMATION ADDUNDUM

What You Need To Understand About Taking An Online Science Course:

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.
Contrary to popular assumptions, online courses are NOT easier and less time-consuming than face-to-face classes. They are actually more challenging and much more time-consuming. You also must have basic computing and web browser skills due to the online design of this course

3. This is an independent study class.
While students think online classes will be less rigorous, they forget the fact that this format will require studying independently (on your own) and without the support of formal lectures by an instructor.

4. You have chosen to enroll in 1) a science course and 2) an online format.
If you don't have disciplined study practices and excellent time management skills you will be at a disadvantage in this course.

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.

Your success will depend on:

- Disciplined Schedule for studying: You must be proactive and communicate with the instructor for assistance if you come across problems with the learning and understanding the course material.
- You may need to learn and study course material and then finish your Virtual Labs for the week, before the scheduled deadline, Sunday midnight.
- Time Management - You must be able to balance your time dedicated to this class (2-3 hours a day).
- Technology Competence – You must have a basic understanding of computers and internet usage. You must be able to independently navigate the Blackboard and the publisher website used in this course. I have provided you with resources if you need assistance in learning the navigation of these resources
- No late work will be accepted 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 course except for Projects as per the instructor's instructions.
- Students must work on their labs by themselves, cheating and copying partners work will be treated as violation of academic integrity.
- Students with specific accommodation, needs, or medical/personal emergencies should communicate with their instructor regarding individual exceptions/provisions. Furthermore, students with allergies should disclose these to the instructor to ensure no contact with the chemical is made. It is the student's responsibility to communicate such needs to the instructor.
- Taking Exam Online

Exams in this course are administered through Blackboard. Exams will be administered with Respondus **LockDown Browser + Respondus 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)

Watch these overview videos to understand the tools your will be using to take the exam.

Respondus LockDown Browser:
https://www.youtube.com/watch?v=XuX8WoeAycs#action=share

Respondus Monitor:
https://www.youtube.com/watch?v=hv2L8Q2NpO4#action=share

Respondus **LockDown Browser + Respondus Monitor (webcam)**

The webcam can be the type that's built into your computer or one that plugs in with a USB cable.

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

Note: LockDown Browser only needs to be installed once on a computer or device. It will start automatically from that point forward when a quiz requires it.

Guidelines while taking online quiz, follow these guidelines

- Ensure you're in a location where you won't be interrupted.
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach.
- Before starting the test, know how much time is available for it, and also that you've allotted sufficient time to complete it.
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices.
- Remain at your computer for the duration of the test.
- If the computer, Wi-Fi, or location is different than what was used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again prior to the exam.
- To produce a good webcam video, do the following:
    - Avoid wearing baseball caps or hats with brims.
    - Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move.
    - If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete.

    - Take the exam in a well-lit room, but avoid backlighting (such as sitting with your back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted.