Introductory Chemistry I Lab (CHEM 1106 5N1)

CREDIT
1 SCH, Semester Credit Hours (0 hours lecture, 2 hours lab)

MODE OF INSTRUCTION
Face to Face

PREREQUISITE/CO-REQUISITE:
N/A

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:

- 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.

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.

INSTRUCTOR CONTACT INFORMATION

Instructor:	Conor Smith
Email:	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 – Bauer, Introduction to Chemistry 6th edition
Supplementary Textbook – OpenStax, Chemistry 2nd edition
ALEKS Chemistry – Introductory College Chemistry
Scientific calculator

ATTENDANCE POLICY

Attendance in lab is mandatory. There is no make-up for missed wet labs (a n experiment using chemicals), missed wet labs will result in a grade of zero (0) except in exceptional circumstances with evidence. Three (3) missed labs will result in an automatic failing grade (F) for the course.

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:

- Lab Assignments 60 %
- CORE Assignment 20 %
- Final Exam 20 %

GRADE SCALE

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

COURSE CALENDAR – CHEM 1106 5N1, Spring 2025

DATE	TOPIC	READINGS (Bauer, 6th)	ASSIGNMENTS	Due Date
Jan 20 – Jan 26	Safety & Equipment		Lab 1 Report Safety Agreement	1/28
Jan 27 – Feb 2	Density	CH 1.2	Lab 2 Report	2/4
Feb 3 – Feb 9	Nomenclature	CH 3.1 – 3.7	Lab 3 Report	2/11
Feb 10 – Feb 16	Cation–Anion Tests	CH 3.1 – 3.7	Lab 4 Report	2/18
Feb 17 – Feb 23	Percent Composition	CH 4.1	Lab 5 Report	2/25
Feb 24 – Mar 2	Definite Composition	CH 4.1 – 4.3	Lab 6 Report	3/4
Mar 3 – Mar 9	Replacement Reactions	CH 5.1 – 5.5	Lab 7 Report	3/18
Mar 10 – Mar 16	**Spring Break**			
Mar 17 – Mar 23	Stoichiometry	CH 6.1 – 6.5	Lab 8 Report	3/25
Mar 24 – Mar 30	VSEPR	CH 8.1 – 8.5	Lab 9 Report	4/1
Mar 31 – Apr 6	Gas Laws	CH 9.1 – 9.3	Lab 10 Report	4/8
Apr 7 – Apr 13	Copper Reaction Series	CH 1 – 11	Lab 11 Report	4/15
Apr 14 – Apr 20	Titration	CH 13.1 – 13.5 + CH 11.5	Lab 12 Report	4/22
Apr 21 – Apr 27	**CORE Assignment**	All Chapters	**CORE Assignment**	**4/29**
Apr 28 – May 4	Help Session / Lab Review	----------	----------	-----
May 5 – May 11	**Final Exam**	All Chapters	**Final Exam**	**5/9**
May 11 – 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. 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.

ADDITIONAL COURSE POLICIES/INFORMATION

Safety glasses must be worn at all times in the chemistry laboratory, no exceptions.

Students are expected to stay for the full duration of the lab period or until all data is taken, calculations are performed, and the lab assignment is turned in. Reports are to be neat and complete. DO NOT USE RED INK. Corrections should be made by a single line through the incorrect data and the correction entered next to the old data.

Safety rules must always be abided by. Any student who continually breaks the safety rules will be removed from the class to ensure the safety of the other students in the class.

The workstation and equipment used during any experiment must be cleaned, dried and returned before leaving the lab. Points will be deducted for poor laboratory habits and leaving dirty glassware and a dirty workstation behind.

No food, drinks, or use of tobacco products in lab is permitted at any time.

Children are not allowed in the laboratory at any time.

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. 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.