CHEM 1112 General Chemistry II Laboratory

	Professor	Section
	Yanping Qin, Ph.D	101, 108, 111, 123
Term	**Spring 2026**	
Meeting times and locations	Workshops: SLC 3.102 Labs: SLC 3.210 (section 101, 108, 111) ; SLC 1.211(section 123)	

Professor's and TAs' Contact Information

Name	Title	Email Address
Yanping Qin, Ph.D	Instructor	Yxq083000@utdallas.edu
Victor Caycedo (101)	TA	Victor.Caycedo@utdallas.edu
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The easiest way to contact an instructor and/or TA is via e-mail.
Every instructor and TA will check their e-mail frequently and they try to respond as fast as possible.
Please always include both – your TA and your instructor – in your e-mail.

Office hours:
By appointment through emails listed above

General Course Information

Pre-requisites, Co-requisites, & other restrictions	Passing Grades in both CHEM 1311 and CHEM 1111 (General Chemistry I Lecture and Lab) or equivalents. No Audits allowed.
Course Description	This course is a continuation of CHEM 1111, it incorporates experiments in kinetics, acid base chemistry, chemical equilibrium, electrochemistry, and colligative properties.
Expected Learning Outcomes	*Students should be able to:* 1. Use graphing techniques and data analysis to evaluate data 2. Think critically through the analysis of experimental data 3. Determine the rate law of a chemical reaction 4. Determine equilibrium constant of a chemical system 5. Explain the effect of various parameters on equilibrium of a chemical system, 6. Generate and interpret pH titration curves
Required Texts & Materials	• Access to online labs through LabFlow. https://labflow.com. You will need to purchase an access code either online through their website or through the University Bookstore. Login information is posted on eLearning course page. Please make sure that you sign onto the correct lab section. • A non-programming calculator for calculations. • Access to eLearning.

	• A notebook for recording your data. • A combination code lock (shared with your lab group)
Supplemental Texts, Readings, & Materials	You may refer to the following material for a better understanding of the chemical principles. • **Lecture Textbook:** *Chemistry: Atoms First, 5th Edition* (Julia Burdge, Jason Overby); McGraw-Hill. The textbook is available as an online version through ALEKS 360 that you purchase for your lecture CHEM 1311 class. • OpenStax is a free online textbook for General Chemistry. You can download it at https://openstax.org/details/books/chemistry-atoms-first-2e
Class Attendance	Regular and punctual class attendance is expected regardless of modality. Students who fail to attend class regularly are inviting scholastic difficulty. **Students must attend lab sessions in person and sign in themselves. Signing in for others or submitting reports without attending will be reported as academic dishonesty.**
Course Access and Navigation	This course can be accessed using your UT Dallas NetID account on the eLearning website. Please see the course access and navigation section of the Getting Started with eLearning webpage for more information. To become familiar with the eLearning tool, please see the Student eLearning Tutorials webpage. UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.
Communication	This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool such as TEAMS may also be used during the semester. For more details, please visit the Student eLearning Tutorials webpage for video demonstrations on eLearning tools. Student emails and discussion board messages will be answered within 3 working days under normal circumstances.
Student Resources	Students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students webpage for more information.
Server Unavailability or Other Technical Difficulties	The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.
Classroom Materials	The instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Recordings	Any recording made will be available to all students registered for this class as they are intended to supplement the classroom experience. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law. Failure to comply with these University requirements is a violation of the Student Code of Conduct. *The instructor may record meetings of this course. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law.*
Use of Generative AI	We expect that the work submitted by the students will be their own original work. The use of generative AI tools (such as Copilot, ChatGPT, chatbots) for completing any assignments is forbidden. Violation of this policy will be considered as academic misconduct.

Assignments & Academic Calendar – CHEM 1112

There will be 12 lab experiments during the semester. There will be no makeup labs, and you are required to attend your own Lab section.
If you are absent from the lab session without a valid excuse, you will receive a zero for your lab grade that week. **Arrival 10 minutes after the lab session starts is considered an absence**.

This schedule and timeline are subject to change at the discretion of the lab coordinator.

Day	Exp. #	Experiment	Report Due
Jan 26 -Jan 30	1	Syllabus, Check-in & Lab Safety	Feb 1 -Feb 6
Feb 2 -Feb 6	2	Excel Exercise	Feb 8 -Feb 13
Feb 9 -Feb 13	3	Constant Pressure Calorimetry	Feb 15 -Feb 20
Feb 16 -Feb 20	4	Exploring Intermolecular Attractions via Viscosity	Feb 22 -Feb 27
Feb 23 -Feb 27	5	Molar Mass Determination through Freezing Point Depression	Mar 1 -Mar 6
Mar 2 -Mar 6	6	Kinetics of Iodine Clock Reaction	Mar 8 – Mar 13
Mar 9 – Mar 13	7	Le Chatelier's Principle	Mar 22 – Mar 27
Mar 16 – Mar 22	**Spring Break**		
Mar 23 – Mar 27	8	Buffer Solutions	Mar 29 – Arp 3
Mar 30 – Arp 3	9	Determination of Molar Mass and Identity of a Diprotic Acid	Apr 5 – Apr 10
Apr 6 – Apr 10	10	Determination of Solubility Product Constant	Apr 12 – Apr 17
Apr 13 – Apr 17	11	Entropy of Borax Dissolution	Apr 19 – Apr 24
Apr 20 – Apr 24	12	Voltaic Cell	Apr 26– May 1

Course Policies

Safety	IMPORTANT: In accordance with University and Chemistry Department safety rules, any time anyone (student, TA, instructor, or visitor) is in a lab, only the chemical splash goggles are allowed in the teaching labs. **They must have indirect ventilation, be Z87.1-2010 compliant AND rated D3 for chemical splash.** Safety glasses are no longer permitted. In addition, arms, legs, and feet should be covered in the lab. Short pants and skirts (which expose calves or thighs) are not allowed. Sleeveless shirts (including spaghetti strap shirts), or shirts that expose your midriff are also not allowed—however, a lab coat may be worn over these shirts during lab. Closed-toed shoes and socks that fully cover your foot and ankle are also required. Hair longer than shoulder length must be put up in an appropriate manner to keep it out of harm's way. For safety concerns, contact lenses cannot be worn in the lab. **Anyone without the proper attire and personal protective equipment is not allowed to enter the lab!**
Pre-labs	**Prelabs will be conducted on LabFlow platform.** Each week students are expected to prepare for the lab by: A. Reading and understanding the experiment. B. Answering **about 10-12 questions on LabFlow** for that particular lab. You will be given 2-hour window to complete the prelab quiz. You will have **one attempt** to complete the pre-lab quiz. **Note: Additional attempts can be purchased using tokens. Refer to the token section below. Prelab will be due the night before the lab at 11:59 pm (midnight).** For example, if your lab section meets anytime on Thursday, the pre-lab for that exp. will be due at **11:59 PM** (midnight) on Wednesday in the same week. It is imperative that you have read and UNDERSTOOD the lab prior to beginning the pre-lab quiz. Students are expected to take the pre-lab quiz on their own, without help from anyone or the internet. However, students are permitted to use materials on LabFlow and/or textbook during the pre-lab quiz. ***Students who do not complete the pre-lab quiz will receive a score of zero for that pre-lab. There will be no extensions/makeup options for the pre-lab.***
Workshops (Lab Lecture)	Workshops (Lab Lectures) are *open discussions* designed to help you understand the concepts and techniques involved in each experiment. The goal here is to make the lab experience more enjoyable by assisting students to reach a basic, overall understanding of the experiment and the science. It is advised to read and gain an initial understanding of the lab prior to the lab period to be better prepared for both the discussion and the experiments. **Attendance at the workshop is mandatory. Late arrival (Arriving 10 minutes after the start of the workshop is considered late) or failure to participate in the workshop will result in a 5-point deduction from lab grade. Repeated late arrivals will not be allowed to participate in the lab.**
Post-Lab Assignments	There is no formal lab reports required for this course. You will be entering your data on LabFlow. You will be performing the analysis of the data (**1 attempt**) and answering questions in LabFlow. **Note: Additional attempts can be purchased using tokens. Refer to the token section below.** The **additional attempts are independent of each other**. For example: If you get Q.6 incorrect but Q.7 correct in your first attempt, then in your second attempt you need to change Q.6 and calculate new values for Q.7. **You will be given approximately a week of time to complete the post-lab**. For example, if your lab meets on Monday, Sep 9, 2024, the post-lab for that exp. will be due at **11:59 PM** (midnight) on Sunday, Sep 15, 2024. Late submissions will be deducted 10 points for each late day.

Data

Use scientific notations and rules of significant figures when manipulating your data to improve accuracy. 0.000789 does not equal to 0.0008, it's 7.89×10^{-4}. Calculating this way might improve % error. Any act of data falsification will be reported to the Student Code of Conduct for Academic Dishonesty.

Token Economy

Token economy is applied in our lab course to encourage diligence in assignment completion and appropriate lab etiquettes. Tokens can be earned, deducted, and used through multiple ways which are summarized below:

- Earning token
  1. Finish watching all the videos in the lab module in LabFlow (+5 tokens)
  2. Submit the prelab quiz before deadline (+5 tokens)
- Losing token
  1. Missed workshop (-5 tokens)
  2. Late for workshop (-2 tokens)
  3. Lab space left unkempt (-5 tokens)
  4. Forgetting to sign in/out (-1 token)
  5. Safety violation (-2 tokens)
- Spending token
  1. Second attempt on prelab quiz (5 tokens)
  2. Additional attempt on post-lab report (5 tokens)
  3. Extension on post-lab report (10 tokens)

Note: Tokens can only be spent before the deadline of the assignments. For example, if the post-lab deadline is passed, then you CANNOT purchase additional attempt or request an extension.

Grading (credit) Criteria

Summary of Points:

Each experiment:	Pts.
Pre-lab quiz	25
Post Lab Assignments	75
Total	100

There is a total of 12 experiments.

Your final letter grade for the course will be determined using a scale such as the one below where the class average is set at the "B-/C+" border (e.g., 79.5 points):

A+	97 & above	C	73-76
A	93-96	C-	70-72
A-	90-92	D+	67-69
B+	87-89	D	63-66
B	83-86	D-	60-62
B-	80-82	F	59 & below
C+	77-79		

Note: Each Section is a unique course; sections are not graded together, but we have uniform grading scales.

*If you suspect that an assignment has been graded incorrectly, you have **one week**, after the assignment is returned to you, to contact the TA/instructor to have the grade changed.*

Extra Credit

None

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:
"As a Comet, I pledge honesty, integrity, and service in all that I do."

UT Dallas Syllabus Policies and Procedures	*The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.* *Please go to http://go.utdallas.edu/syllabus-policies for these policies.*

These descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.