Towson University
CHEM 132L: General Chemistry II Laboratory Syllabus
Section 003
Fall 2025

GENERAL INFORMATION

INSTRUCTOR: Alison Newman
OFFICE: Adjunct Office in the Chemistry Department on the 4th floor
E-MAIL: anewman@towson.edu

OFFICE HOURS:
Tuesdays from 8:00 – 9:00am or email me and we can schedule a meeting over Zoom

LABORATORY TIME:
Lab: Tuesdays 9:00 – 11:50am in SC 3322

STUDENT RESPONSIBILITIES:

1. Attend lab every week (arrive on time, stay for duration)
2. Come prepared! – Read experiment BEFORE lab
3. Complete and submit all assignments on time
4. DO NOT CHEAT

REQUIRED MATERIALS:

LAB MANUAL:	Department of Chemistry, Towson University, *General Chemistry II Laboratory Manual,* 2025-2026 (PDF on Blackboard)
LAB NOTEBOOK:	Must have carbon copy pages that can be turned in as a duplicate of what has been recorded in the notebook. These are sold by the chemistry club (SAACS) and at the bookstore.
OTHER REQUIRED MATERIALS:	Safety goggles (safety glasses are NOT acceptable) Scientific calculator (capable of scientific notation, log functions, etc.) All required materials are available for purchase at the bookstore.
BLACKBOARD:	Important announcements, assignments, and handouts will be made available to students in electronic format on Blackboard. TU email is preferred communication and students should not expect an email response from their lab instructor in less than 24 hours. Quizzes and reports will be completed on-line. Therefore, a computer and stable internet access are required. Towson University provides laptops for students to borrow, as well as technology and resources support (https://www.towson.edu/scs). Here is the email address for student computing services (scs@towson.edu). If you have technical issues, submit a service request at https://techhelp.towson.edu.

GENERAL INFORMATION

CATALOG DESCRIPTION*:*
Laboratory experiments to support concepts of General Chemistry II Lecture. Corequisite: CHEM 132 (General Chemistry II Lecture). Not open to those who have successfully completed CHEM 111. **Note: you must simultaneously be registered for this course and for CHEM 132. The only exception is if you have prior credit for CHEM 132.*

COURSE GOALS:

1. Students will display competency in essential skills required of a college graduate by: Demonstrating knowledge of methods used to collect, interpret, and apply scientific data.
2. Students will explore and integrate knowledge in order to understand how various disciplines interrelate by:
    a. Articulating relevant basic assumptions, concepts, theoretical constructs and factual information of chemistry.
    b. Understanding and applying relevant methodologies and strategies of inquiry.
    c. Applying appropriate critical-thinking/problem-solving skills and communication skills in context.
3. Students will use inquiry and critical judgment to make decisions by:
    a. Reflecting and evaluating claims and evidence (rather than merely reporting information).
    b. Thinking in complex terms that move beyond an either/or binary approach.

STUDENT LEARNING OUTCOMES:
Students will be able to:

1. Utilize scientific vocabulary and examples to describe major ideas appropriate to a specific scientific discipline.
2. Use quantitative reasoning to analyze and/or support scientific information.
3. Identify, describe critique, respond to, and construct the various components of the scientific process such as observations, inferences, operational definitions, aspects of scientific design, conclusions, control of variables, etc.
4. Explain scientific issues of current importance to society within scientific, technological, historical, societal and ethical contexts.

Laboratory Fees:
Your CHEM 132L lab fees help directly achieve the above by paying for many of the spectrophotometers, portable chemical sensor devices, digital pipets, top loading balances, chemicals and glassware that you and future students use in this laboratory.

Copyright Notice:

TU Mask Policy:
All students are expected to follow Towson University policy regarding wearing masks. Students who do not follow the policy will be referred to the Office of Student Accountability and Restorative Practices.

LABORATORY COURSE POLICIES

ACCOMMODATIONS: Students with approved accommodations must submit their ADS memos to the instructor *the first week of class*. It is the student's responsibility to present this paperwork and to follow up regarding accommodations that require instructor participation (e.g. testing accommodations). Please contact Accessibility & Disability Services http://www.towson.edu/accessibility-disability-services/ with any further questions.

ATTENDANCE: Attendance at all laboratory sessions is mandatory! Traffic delays and parking issues are not acceptable reasons for being late or absent.

Late Policy: Students must be on time to all prelab lectures. Students who arrive between 5 - 15 minutes late to the prelab lecture will receive the following penalties:
1st offense: 15 POINT deduction for that day's experiment.
2nd offense: 30 POINT deduction for that day's experiment.
3rd or higher offense: ZERO credit for that day's experiment.

Any student more than 15 minutes late to laboratory will not be permitted in lab (unexcused absence) as this is a safety issue!

Absences: *Labs that are missed cannot be made up in another section.*

Excused Absence: All absences are ***initially recorded as unexcused***. Students must email their instructor within 24 hours of the first absence requesting the make-up assignment for reclassification as an excused absence. Make-up work includes the prelab quiz, group work, and the make-up assignment. For a second absence to be excused, the student must email their instructor **documentation for a TU excused absence** within 24 hours of the absence. A total of two absences are allowed during a semester.

Three or more absences: Consultation with the lab instructor and general chemistry coordinator is required to determine how to proceed.

Unexcused Absence: Unexcused absences will result in a **ZERO** for all work associated with the missed experiment (prelab quiz, group work, notebook pages, and report). Students who fail to contact the instructor by email within 24 hours of a missed laboratory session will be given a **ZERO** for points associated with that day's experiment.

Laboratory Time Conflict: In the case of a student who has a university sanctioned event or religious observance that will conflict with a laboratory session, the student must provide documentation to the instructor a minimum of 2 weeks in advance of the conflict date (sooner if possible). A make-up experiment will be arranged in consultation with the instructor. If written notification is not provided in a timely fashion, the student may receive a **ZERO** for the missed work.

LABORATORY COURSE POLICIES CONTINUED

CHEATING: Students are subject to the Towson University Student Academic Integrity Policy, available on the university website. Cheating will NOT be tolerated. All assignments must be a student's individual work. Any work that is not original must be properly cited, otherwise it will be considered plagiarism. If you are unclear about what constitutes plagiarism, please see the instructor. No use of AI on assignments. *Any* violation of the university's academic integrity policy will be penalized, up to and including a grade of F *for the course* for each student involved. Letters detailing the specifics of any occurrence will be kept on file by the university for seven years.

DIVERSITY: The students, faculty, and staff at Towson University represent a diverse and vibrant community of learners and scholars. As a community, we value the unique contributions of each individual and promote active participation in all aspects of the learning process by each community member. Your instructor supports Towson University's goal of fostering a diverse and inclusive educational setting. Your instructor strives to create an educational environment built upon the principles of mutual respect and support. Toward this end, all members participating in this course are expected to demonstrate respect for all other members of the class, both within and outside the classroom. If you feel these expectations have not been met, please speak with your instructor or the designated diversity liaison, Dr. Cindy Zeller (czeller@towson.edu).
For further information regarding the diversity and inclusion policies of Towson University, please see Towson University's Office of Inclusion and Institutional Equity, the Fisher College of Science and Mathematics Diversity Action Plan, and the Chemistry Department Diversity Action Plan.

PREGNANT STUDENTS: Pregnant students should consult their physicians for advice on whether or not to perform experiments in the laboratory. Students are encouraged to provide their physician with a list of the chemicals that they might be exposed to while in lab. They should also check the MSDS sheets (available in the Department) to be aware of the hazards of the chemicals.

If a student is advised against performing laboratory work, then faculty will make accommodations for the student. Any accommodations should comprise a workload that is approximately equivalent to the regularly scheduled laboratory work. These accommodations may include:

- performing "dry" experiments only, in a place free from exposure to ongoing experiments;
- performing the wet chemistry at a later date;
- receiving an incomplete grade in the course pending completion of experimental work

TITLE IX TU is committed to ensuring a safe learning environment on campus http://towson.edu/titleix. Counseling resources: https://www.towson.edu/counseling/

LABORATORY COURSE POLICIES CONTINUED

SAFETY: **Students are required to read and electronically complete the laboratory safety agreement ***BEFORE*** working in the lab. Please see your course Blackboard site for the safety agreement link.** Students are expected to follow all safety rules and regulations, both written and verbal, at all times in the laboratory. Students who fail to comply with safety regulations will be asked to leave the laboratory, and will be subject to the penalties below.

Dress Code: ***All skin must be completely covered from the torso down to the toes. Long pants and shoes completely covering the feet are required.*** Any student wearing tank tops, crop tops, shorts, capri pants, leggings, yoga pants, no-show/ankle socks, slippers, crocs, skirts* or open shoes will be denied permission to work in the laboratory.

1st offense: The student will be dismissed from the laboratory (excused absence). The student will be given the makeup assignment, but will receive a **25 POINT** deduction.

2nd or higher offense: **ZERO** credit for that day's experiment (0/90 points) and be counted as an unexcused absence.

*Exceptions will be made for religious observance. Please discuss with your instructor during the first week of laboratory!

Food: Food and drinks (including water) are not permitted in the laboratory at any time. Any food or drink found in the laboratory will be immediately discarded.

Goggles: Approved safety goggles must be worn at all times in the laboratory as indicated by your instructor. If a student forgets to bring their goggles to lab, they may borrow a pair from the instructor. Borrowing goggles will result in a **10 POINT deduction** from that day's laboratory work. Students can borrow goggles for up to two experiments. If a student does not bring goggles to lab a third time (or more), the student will be dismissed from lab (unexcused absence).

If you have to be asked more than twice to put your goggles on during a given laboratory period, your instructor will ask you to leave and give you a **ZERO** for that day's laboratory experiment (0/90 points) and counted as an unexcused absence.

GRADING

Grades for this course will be calculated from a total of 1015 points. Laboratory work will consist of quizzes, prelab work, notebook pages, and reports. The points will be assigned as described below:

GRADING

Prelab Quizzes (10 x 20 pts)	200 pts
Safety Quiz	20 pts
Prelab Work (10 x 5 pts)	50 pts
Notebook Pages (9 x 5 pts)	45 pts
Notebook Quiz	100 pts
Reports (10 x 60 pts)	600 pts

GRADING SCALE:

A	93-100	C+	77-79.9
A-	90-92.9	C	70-76.9
B+	87-89.9	D+	67-69.9
B	83-86.9	D	60-66.9
B-	80-82.9	F	Below 60

QUIZZES: Students have 24 hours before lab to take the prelab quizzes in Blackboard. Quizzes must be completed <u>before</u> prelab begins and no make-up quizzes will be given without an excused absence for the time period when the quiz was available.

PRELAB WORK: Every experiment begins with a prelab meeting including group work. Students are required to attend every meeting and participate. Group work is submitted to Blackboard by the due date and late submissions earn zero points.

NOTEBOOK PAGES: Students are required to keep a laboratory notebook written in <u>blue or black ink</u>, and your instructor must sign the first page of each week's lab notebook entries. <u>Carbon copies</u> of notebook entries should be neatly torn along the perforation, stapled together, and submitted *before exiting the laboratory*. Late submissions earn zero points. Notebook entries include pre-lab notes, objectives, procedures (-5 pts on report if not present at start of lab), observations, data tables and calculations. Students absent from lab are responsible for obtaining missed information from another student for their notebook.

REPORTS: Reports for each experiment are submitted in Blackboard (no resubmissions). Reports received after the due date, but during the grace period (see schedule), will receive a 25% deduction in addition to any points lost due to incorrect answers. If the report is not received by the final acceptance deadline, zero points are earned.

If a student's report answers are not consistent with their data, or the current semester assignment, the student will receive ZERO credit for the given report.

<u>Only students with a documented excused absence will be allowed to make up missed work.</u> Towson University excused absences include illness, injury, death in the family, religious observation, and TU required event.

CHEM 132 LAB SCHEDULE Fall 2025 – Subject to change with notice!

Dates	Week	Title	Report Due Date	Report Not Accepted After
Monday 8/25 – Friday 8/29	1	Syllabus, Safety, Using Excel for Graphing	8/26	9/2
Monday 9/1 – Friday 9/5	2	ONLINE: Lab Safety Training with Quiz, Graphing Quiz		
Monday 9/8 – Friday 9/12	3	Intermolecular Forces	9/23	9/30
Monday 9/15 – Friday 9/19	4	IMF Data Analysis (mandatory attendance)		
Monday 9/22 – Friday 9/26	5	Solution Preparation	9/23	9/30
Monday 9/29 – Friday 10/3	6	Freezing Point of a Solution	10/7	10/14
Monday 10/6 – Friday 10/10	7	Chemical Kinetics	10/21	10/28
Monday 10/13 – Friday 10/17	8	ONLINE: Kinetics Data Analysis		
Monday 10/20 – Friday 10/24	9	Chemical Equilibrium	10/28	11/4
Monday 10/27 – Friday 10/31	10	Acids, Bases, Salts & Buffers	11/4	11/11
Monday 11/3 – Friday 11/7	11	Acids, Bases, Salts & Buffers Data Analysis (mandatory attendance)		
Monday 11/10 – Friday 11/14	12	K_{sp} of Calcium Hydroxide	11/18	11/25
Monday 11/17 – Friday 11/21	13	Thermodynamics of Potassium Nitrate Dissolution	11/25	12/2
Monday 11/24 – Friday 11/28	14	Thanksgiving Break		
Monday 12/1 – Friday 12/5	15	Lab Notebook Quiz and Electrochemical Activity Series	12/2	Instructor Written Permission Only