CHEM 132: General Chemistry II Lecture
Sections 001 and 004
Spring 2021

GENERAL INFORMATION

INSTRUCTOR: Dr. Courtney Thomas
E-MAIL: cthomas@towson.edu

OFFICE HOURS:
Zoom office hours Thursdays 10 am (link on Blackboard)

CLASS TIMES:
Students will be assigned to synchronous online recitations meeting on Mondays or Wednesdays
Fridays are reserved for weekly quizzes on Blackboard during normal class time
CHEM 132-001: 12 – 12:50 pm
CHEM 132-004: 2 – 2:50 pm

STUDENT RESPONSIBILITIES:

1. Attend class recitation (in person or on-line)
2. Read the text, watch assigned videos, and work practice problems outside of recitation.
3. Take notes while reading the text, watching assigned videos, and complete assignments on time.
4. Study 7-9 hours every week
5. DO NOT CHEAT

REQUIRED MATERIALS:

TEXTBOOK & ONLINE RESOURCES: *Chemistry: A Molecular Approach* 5th Edition, by Tro (Direct Access through Blackboard) Direct access includes Pearson's Mastering.

REQUIRED MATERIALS: Scientific calculator

BLACKBOARD: Blackboard will be used to post materials required for the course and grades on assignments. Announcements, including due dates for assignments will also be posted, so students are responsible for checking the site regularly during the semester and completing assignments on time.

Quizzes and exams will be administered via Blackboard. 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). Additionally, students can apply for CARES Act funding to purchase their own computer (https://www.towson.edu/studentaffairs/care/student-emergency-fund.html).

COURSE OVERVIEW

COURSE DESCRIPTION:

Physical properties of liquids, solids and solutions, kinetics, equilibrium, acids and bases, chemical thermodynamics and electrochemistry. CHEM 132L must be taken concurrently. Not open to those who successfully completed CHEM 111. Prerequisite: CHEM 131 and 131L. Corequisite: CHEM 132L.

For the spring 2021 semester, this course will be taught online using a Flipped Classroom approach. This means that students are expected to read the chapter in the eText and watch the lecture videos BEFORE attending the synchronous online recitation meetings. Recitation is an opportunity for students to apply the information they learned to solve problems in groups.

LEARNING OUTCOMES:

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.

COURSE GOALS:

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.

COPYRIGHT NOTICE:

ASSIGNMENTS & GRADING

The overall course grade will be computed as shown below. Any grade disputes on a given assignment must be brought to the instructor's prior to the last day of classes.

HOMEWORK (10% OF TOTAL GRADE): Pearson's Mastering program is a web-based assessment system required for this course, and is included with the Direct Access eText package. Assignments through Mastering are provided for each chapter and due dates are posted at the beginning of the semester. **Students with a Student Affairs (studentaffairs@towson.edu) verified excused absence must provide documentation to their instructor within 24 hours of the due date to be allowed to make up missed assignments.** Students have at least one week (for most, at least two weeks) to complete the assignment. Therefore, there are no extensions for homework assignments without a verified excused absence. Dynamic Study Modules are always available for practice, and if completed by the due date, count as extra credit points.

RECITATION (15% OF TOTAL GRADE): In-person and/or online recitation sessions will be held to solve problems. Recitation work will be graded as 50% participation and 50% correct answer. Participation points cannot be made up without a Student Affairs documented excused absence! Thus, you must attend the recitation sessions and correctly complete the work to earn the full points.

QUIZZES (60 % OF TOTAL GRADE): Twelve announced quizzes will be given online throughout the semester during class.

FINAL EXAM (15% OF TOTAL GRADE): There will be one cumulative online final exam given on Saturday May 15th from 12:30-2:30 pm.

QUIZ CONFLICT: In the case that a student has a university sanctioned event or religious observance that will conflict with an in-class quiz, the student must provide documentation to the instructor a minimum of 2 weeks in advance of the quiz date (sooner if possible). An alternate time can be arranged to take a quiz *PRIOR* to the scheduled quiz time. If written notification is not provided to the instructor before to the quiz date, the student will be subject to the missed quiz policy below.

MISSED IN-CLASS QUIZZES: Students are expected to take all quizzes as scheduled. **If a student misses a quiz due to an excused absence (documented through Student Affairs: studentaffairs@towson.edu), the student must contact the instructor within 24 hours of the quiz time.** Instead of a make-up quiz, a problem set will be assigned that must be completed within one week of the quiz date. If the problem set is completed and earns instructor approval, the final exam percentage earned will be used in place of the missed quiz for the course grade determination. If the problem set is not completed with instructor approval, the missed quiz will be counted as a zero.

FINAL EXAM: The final exam is required. If extreme circumstances prevent a student from taking the final exam at the scheduled time, they must contact the instructor by email within 24 hours detailing their circumstances. At that point, it is up to the instructor to determine *if* and when an alternate exam time will be scheduled. Final exam is Saturday May 15th from 12:30-2:30 pm.

FINAL FORGIVENESS: The following policy applies *only* to students who complete *all* twelve in-class quizzes. In the event a student earns a higher percentage on their final exam than **one** of the twelve in-class quiz percentages, the final exam percentage will be substituted for that quiz grade. In the event the final exam percentage is lower than all twelve quiz grades, all in-class quiz scores will remain unchanged. **Using the final exam grade as a substitution for a missed quiz, takes priority over the substitution of a final exam grade for a lower in-class quiz grade.**

ASSIGNMENTS & GRADING

Quiz and Final Exam Dates:

Quizzes: Fridays at the beginning of class.
Final Exam: Saturday May 15th from 12:30-2:30 pm

Quizzes are on Blackboard and start at the beginning of class on Fridays. Students have a 10 minute window to access the quiz. Once in the quiz, students have 25 minutes to complete the quiz. When providing solutions to quiz questions, students must use the preferred method explained in class to earn full credit. If an alternative method is used, students must be prepared to justify and explain the solution during a meeting with the instructor.

POINTS:	**Assignment**	**Each Worth**	**Total**
	Homework (10 total)	10	100
	Recitation (15 total)	10	150
	Quizzes (12 total)	50	600
	Cumulative Final Exam	150	150
		Total Points	**1000**

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

COURSE POLICIES & REQUIREMENTS

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 (eg testing accommodations). Please contact Accessibility & Disability Services http://www.towson.edu/accessibility-disability-services/ with any further questions.
ATTENDANCE & COURSE ASSIGNMENTS:	Watching and taking notes on all pre-recorded lectures is expected. Attendance is expected at all in-person or synchronous on-line recitation meetings It is the student's responsibility to complete course work on time, including homework and online quizzes/exams, by the dates posted on Blackboard, provided on Pearson, or listed in the syllabus. **Students with a Student Affairs verified excused absence must provide documentation to their instructor within 24 hours of the due date to be allowed to make up missed assignments.** It is the student's responsibility to understand all missed course work policies (see page 3). In the case that a student has a university sanctioned event or religious observance that will conflict with a class assignment, the student must provide documentation to the instructor a minimum of 2 weeks in advance of the event/observance (sooner if possible). Alternate due dates/ assignments will be arranged as appropriate. If written notification is not provided to the instructor PRIOR to the event/observance, the student may receive a zero for the missed work.
CHEATING	Students are subject to the Towson University Student Academic Integrity Policy, available on the university website. Note that academic dishonesty includes (but is not limited to) cheating *and* allowing another student to cheat. *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. In addition, letters detailing the specifics of the occurrence will be kept on file by the University for seven years.
COMMUNICATION	All course documents will be available on Blackboard. You are responsible for anything sent by the instructor via email or posted on Blackboard. All email communication will be sent to university email accounts; you are responsible for checking that account frequently.
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 a classroom 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. 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 "Strategy 1:Exposure to Diversity" , the Fisher College of Science and Mathematics Diversity Action Plan, and the Chemistry Department Diversity Action Plan.

STUDYING RESOURCES

OFFICE HOURS	I am available for help during my office hours (see page 1) or by email.
PEARSON RESOURCES	The book website has many additional resources. These include: • End of Chapter Self Assessment quiz • End of Chapter Problems • In-chapter videos • Dynamic Study Modules
TUTORING CENTER	Free tutoring is available. Join the science online tutoring community on Blackboard using the website: https://www.towson.edu/tutoring-learning/course-support/tutoring/natural-science.html.
WEBSITES	Ms. Ladon has posted many useful handouts about General Chemistry problem solving on her website https://tigerweb.towson.edu/ladon/ Additional resources are available through the Tutoring and Learning Center https://www.towson.edu/tutoring-learning

CHEM 132 COURSE CONTENT

CHAPTER	SECTIONS
11. Chemical Bonding II	11.1 – 11.8
12. Liquids, Solids and IMFs	12.1 – 12.8
14. Solutions	14.1 – 14.7
15. Chemical Kinetics	15.1 – 15.7
16. Chemical Equilibrium	16.1 – 16.9
17. Acids and Bases	17.1 – 17.11
18. Aqueous Ionic Equilibria	18.1 – 18.6
19. Free Energy and Thermodynamics	19.1 – 19.10
20. Electrochemistry	20.1 – 20.5
21. Radioactive & Nuclear Chemistry	21.6