# CHEM 1410: General Chemistry for Science Majors

## Instructor Contact

**Course Resources**

  

**Name: Dr. Petros [pronouns: she/her]**

**Office Location: 363 Chemistry**

**Phone Number: 940-369-8829**

**Student Drop-In Hours in 363 Chemistry: Wednesdays 9-11AM and meetings by appointment – send an email with your availability** I encourage you to come to my drop-in hours at least once this term. You don’t have to be caught up on the material, and you don’t have to have a specific question, although if you do, I can certainly help with that. You can just show up to introduce yourself so I can start to put faces to names in the class

**Email:** [**amy.petros@unt.edu**](mailto:amy.petros@unt.edu) At some points in the term, my inbox gets quite full, but I do want to hear from you. If you email me and don’t hear back from me within two business days, please send a follow up email. I will appreciate the gentle reminder.

**Communication Expectations:** Email, office hours attendance, and asking questions before/during/after the group assignments are the best way to communicate with Dr. Petros.

## Course Description

## Fundamental concepts, states of matter, periodic table, structure and bonding, stoichiometry, oxidation and reduction, solutions, and compounds of representative elements.

*NOTE: This is a separate course from the lab CHEM 1430. Students must register for CHEM 1430 for the lab component associated with this course.*

## Course Structure

**This is a “flipped” course**, which means our lecture portion is pre-recorded and assigned to students **outside of class time**. Our scheduled course time is spent on active learning (the group assignment). Homework is completed outside of scheduled class time.

Course Prerequisites or Other Restrictions

**Pre-requisites:** C or better in MATH 1100 or CHEM 1980

## ***Important Note***: Students enrolling in my class are accountable for all of the material in College Algebra; If you have not mastered those concepts you should visit me or a TA and we will provide resources that can help you learn and review the concepts from College Algebra, which should prepare you for this course.

**These are global-level course objectives.**

By the end of this course, students will be able to:

1. Describe features of matter on the macroscale.
2. Identify features of matter on the nanoscale.
3. Predict reactivity of elements and compounds
4. Apply quantitative skills to atoms, elements, compounds, and chemical reactions

## Materials- ALL FREE

* Textbook information: OpenStax Chemistry, 2nd edition <https://openstax.org/details/books/chemistry-2e>
* All other required or suggested materials/readings/homework are posted in Canvas modules

## Teaching Philosophy

As a **PhD chemist with a decade of teaching experience**, I hold a reasonable standard of rigor for my students. When students need help, they are encouraged to contact me. **Asking questions is the mark of brilliant minds!**

I care about the success of each student, even if I cannot meet with all of you individually due to the size of this class. When you have questions about the course material, questions about the subject more broadly, concerns to discuss, accommodations you need, or thoughts you want to share, please start by contacting **me**

## Course Calendar

See end of document

## Course Requirements

| ***Assignment*** | ***Percentage of Final Grade*** |
| --- | --- |
| ***Homework (drop 4)*** | *12.5%* |
| ***Group Assignments (drop 4)*** | *25%* |
| ***Top 3 unit exams*** | *37.5%* |
| ***Final exam*** | *25%* |
| ***Total Percent Possible*** | *100%* |

## Grading

This course uses a standard grading schematic as follows:

A = 90% or more of total points

B = 80-89% of total points

C = 70-70% of total points

D = 60-69% of total points

F = less than 60% of total points

Extra credit may be offered at the discretion of the professor. No extra credit or additional assignments are available after the final exam.

## **Course Evaluation**

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course.

## Course Policies

### Assignment Policy

**Homework** *(10 of 110 are dropped)* – these are the videos with embedded quizzes that from the foundation of our flipped course. Students get three attempts to answer the question correctly to earn credit. These are available all semester and due before class.

**Group Assignments** *(4 of 24\* are dropped)* – these are problem sets and activities that support students in developing a broader understanding of particulate matter. These activities are designed to develop effective teamwork skills.\*due to UNT closure, this number may change

**Unit Exams** *(one of four is dropped)* – these are timed (50 minutes, 20 questions) exams that do not offer partial credit via Canvas. We take these in the Sage Hall Testing Center or in our classroom on UNT-issued devices. Practice Exams are posted on Canvas. Many students experience a shockingly low grade on their first Unit Exam and it is not a reflection of their future success.

**Final Exam** – *required*, comprehensive exam that is 40 questions and timed at 2 hours.

### Examination Policy

All exams are given through Canvas in the Testing Center. Using notes or devices beyond a memory-cleared calculator are not permitted during exams and will result in a 0.

Instructor Responsibilities and FeedbackAs the instructor of record, I will:

* Design a course that requires and supports student learning
* Respond to most email communications (in the event that I receive many emails about one topic, I may post an announcement on Canvas rather than respond to each individual message)
* Schedule a minimum of two (2) office hours per week to meet with students and work problems or answer any questions

Late WorkNo late work is accepted; Instead, we have a system of automatic drops for maximum flexibility: Four (4) group assignments are dropped, one (1) unit exam is dropped, at least 5 homework assignments are dropped. If a student misses the final exam due to a UNT-approved absence, they receive an Incomplete (I) until they can complete a make-up version of the final exam.

Attendance PolicyAttendance is mandatory for each class and is taken 10 minutes after class is scheduled to begin. Students arriving after 10 minutes are marked absent and will not receive credit for the in-class assignment (4 group assignments are dropped). Engaging in our course is the best way path to success.

Our scheduled exam times are in the Sage Hall Testing Center as follows:

**Unit 1 Exam: Wed Sept 10 8AM-850AM (all Modules that start with “Unit 1”)**

**Unit 2 Exam: Wed Oct 8 8AM-850AM (all Modules that start with “Unit 2”)**

**Unit 3 Exam: Wed Oct 29 8AM-850AM (all Modules that start with “Unit 3”)**

**Unit 4 Exam: Wed Nov 19 8AM-850AM (all Modules that start with “Unit 1”)**

**Final Exam: Mon Dec 8 8AM-10AM**

Students missing one test will have that score dropped; students missing two exams will have their final exam % replace their second missed exam. Students missing more than the amount of assignments covered above, please meet with professor as soon as possible.

Class Participation

Teamwork guidelines

Students may not use a device connected to the internet during group assignment completions, or any face-to-face activity, unless directed to do so as part of the activity/assignment. Engaged students ask questions of their teammates, themselves, and “helpers.”

**Course Conduct:** I am committed to creating a learning environment where diverse perspectives are recognized and valued as a source of strength. I request that all students work with me to create a class culture based on open communication, mutual respect, and inclusion. As a class we will approach all discussions with respect and civility. Disagreements and debates in academic discourse are expected and welcome, but personal attacks are never OK, and will not be tolerated. I strive to ensure an open and welcoming classroom for all students. If I ever miss the mark, please don’t hesitate to come and talk to me. We are all learning together.

**Note:** In previous years, some students have told me that they had times during the course when they felt that they were not doing well and became uncertain about whether they belonged in this class or should change majors. I advised them to hang in there, and in the meantime to access the CRC (Chemistry Resource Center) and join a PLTL group. A number of these students contacted me later in the year to tell me that, now that some time had passed and they had taken some positive steps, they did feel like they belonged in the class and in the major. For recommendations for resources available to help you succeed in this course, please see the Academic Support Resources section of the syllabus below.

**Academic Support Resources**

This campus provides extensive academic supports for students, and these supports are there to let students achieve the academic success they are truly capable of. I have provided a list of the academic support offices offered by UNT below.

*Chemistry Resource Center –* Free tutoring in Chemistry room 231; staffed by graduate students in chemistry

*Student Drop-In Hours- Professor* (listed above, posted on Canvas under Announcements, and announced periodically in class)

*Office Hours – TA* (posted on Canvas under Announcements)

*Peer-Led Team Learning:* A separate Canvas page for our course. Sign up under the Groups Tab

*The Learning Center-* provides academic coaching, free personal tutors, classes on speed reading, note taking and other skills

Syllabus Change PolicyIf a syllabus change is required, it will be posted as an announcement on Canvas.

## UNT Policies

### Academic Integrity Policy

Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. This includes using electronic communication with other people during exams, formula sheets or notes used on exams, etc.

In my experience, academic misconduct most often occurs because students become overwhelmed and desperate. If you are concerned about how you are doing in this course, please come speak with me instead of considering academic misconduct. You are very capable of meeting my expectations for this course.

### ADA Policy

Accommodations exist to provide opportunities for all students to succeed and I am happy to work with students. Several students have undiagnosed disabilities that have manifested during our course and have affected their success. Niels Bohr, Nobel laureate in chemistry, experienced undiagnosed dysgraphia (yes, I diagnosed him)! Accommodations are NOT unfair advantages or unrealistic supports that don’t exist in the “real world” – these supports are mandated by law so that all people have the tools they need to succeed.

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one’s specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the [ODA website](https://disability.unt.edu/) (https://disability.unt.edu/).

### Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Blackboard for contingency plans for covering course materials.

### Retention of Student Records

Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student’s records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University’s policy. See UNT Policy 10.10, Records Management and Retention for additional information.

### Acceptable Student Behavior

Student behavior that interferes with an instructor’s ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the virtual classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. Visit UNT’s [Code of Student Conduct](https://deanofstudents.unt.edu/conduct) (https://deanofstudents.unt.edu/conduct) to learn more.

### Access to Information - Eagle Connect

Students’ access point for business and academic services at UNT is located at: [my.unt.edu](https://my.unt.edu/). All official communication from the University will be delivered to a student’s Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail [Eagle Connect](https://it.unt.edu/eagleconnect) (https://it.unt.edu/eagleconnect).

### Student Evaluation Administration Dates

Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" ([no-reply@iasystem.org](file:///C:\Users\jdl0126\AppData\Local\Temp\OneNote\16.0\NT\0\no-reply@iasystem.org)) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the [SPOT website](http://spot.unt.edu/) (http://spot.unt.edu/) or email [spot@unt.edu](file:///C:\Users\jdl0126\AppData\Local\Temp\OneNote\16.0\NT\0\spot@unt.edu).

### Sexual Assault Prevention

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT’s Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim’s compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at [SurvivorAdvocate@unt.edu](file:///C:\Users\jdl0126\AppData\Local\Temp\OneNote\16.0\NT\0\SurvivorAdvocate@unt.edu) or by calling the Dean of Students Office at 940-565- 2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at [oeo@unt.edu](file:///C:\Users\jdl0126\AppData\Local\Temp\OneNote\16.0\NT\0\oeo@unt.edu) or at (940) 565 2759.

### Important Notice for F-1 Students taking Distance Education Courses

**Federal Regulation**

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the [Electronic Code of Federal Regulations website](http://www.ecfr.gov/) (<http://www.ecfr.gov/>). The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f)(6)(i)(G).

The paragraph reads:

(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student's course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement.

**University of North Texas Compliance**

To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student’s responsibility to do the following:

(1) Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.

(2) Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email [internationaladvising@unt.edu](mailto:internationaladvising@unt.edu)) to get clarification before the one-week deadline.

### Student Verification

UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or additional charges associated with student identity verification in distance education courses.

See [UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses](https://policy.unt.edu/policy/07-002) (https://policy.unt.edu/policy/07-002).

### Use of Student Work

A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student’s permission unless all of the following criteria are met:

* The work is used only once.
* The work is not used in its entirety.
* Use of the work does not affect any potential profits from the work.
* The student is not identified.
* The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student’s written permission.

Download the UNT System Permission, Waiver and Release Form

**Transmission and Recording of Student Images in Electronically-Delivered Courses**

1. No permission is needed from a student for his or her image or voice to be transmitted live via videoconference or streaming media, but all students should be informed when courses are to be conducted using either method of delivery.
2. In the event an instructor records student presentations, he or she must obtain permission from the student using a signed release in order to use the recording for future classes in accordance with the Use of Student-Created Work guidelines above.
3. Instructors who video-record their class lectures with the intention of re-using some or all of recordings for future class offerings must notify students on the course syllabus if students' images may appear on video. Instructors are also advised to provide accommodation for students who do not wish to appear in class recordings.

Example: This course employs lecture capture technology to record class sessions. Students may occasionally appear on video. The lecture recordings will be available to you for study purposes and may also be reused in future course offerings.

No notification is needed if only audio and slide capture is used or if the video only records the instructor's image. However, the instructor is encouraged to let students know the recordings will be available to them for study purposes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Week of Aug 18 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| First day of class: Reciprocal Interview, student question parking lot  HW: watch videos on Density, Specific Heat, Kinetic and Potential Energy; practice problem sets in module | Print out Periodic Table to bring to class if you don’t already have one  Bring Scientific or graphing calculator to class  Bring something to write with and something to write on to class | Class: Group assignment 1  HW: attempt practice problem sets in Unit 1: Group Assignment 1 Intro/review material module | HW: watch videos on 3 Laws. Periodic Table 1-3; attempt practice problem sets in module Unit 1 Group Assignment 2  Start making a Unit 1 Equation and Definition sheet that has every equation and definition we are learning | HW: re-work Gp assignment 1    Make an appt with Dr. Petros if you are not getting the correct answers for the practice problem sets or feeling lost or want a snack and say HI!  Email: amy.petros@unt.edu |
| Week of Aug 25 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 2  HW: watch videos on Classical Experiments leading to the discovery of the atom; attempt practice problem sets in module Unit 1 Group Assignment 3 | HW: make metric system prefix flashcards and use the Leitner method | Class: Group Assignment 3  HW: attempt practice problem sets from Unit 1 Group Assignment 3 module  Watch video on Naming Binary Compounds and printout Naming Flow Chart tool; practice Naming problem set |  | HW: use the Leitner method with the metric system prefix flashcards  Re-work Gp assignments 2 and 3 |
| Week of Sept 1 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| No class due to Labor Day Holiday | HW: use Leitner method for metric system prefix flashcards | Class: Group Assignment 4  HW: second attempt on practice problem sets in Unit 1 Gp Assignment 4 module  watch videos on Molar mass of compounds, Moles as conversion factors, and Empirical Formula 1-5; attempt practice problem sets in module Unit 1 Group Assignment 5 | HW: take Practice exam with only a Periodic Table and calculator. Review which problems were missed and go to practice problem sets and group assignments for similar problems | HW: practice problems for exam 1 (practice problem sets, re-work group assignment 4) |
| Week of Sept 8 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 5  HW: second attempt on practice problem sets for Group Assignment 5 | HW: prepare for exam; make a “fishbone” study guide on each topic (title of modules or pages in module)  Re-work Gp assignment 5 | Class: Exam 1 over content in Unit 1 modules |  | HW:  watch videos for How to Balance, Stoichiometry 1-5  First attempt on practice problem sets  Start making Unit 2 Equations and Definitions study guide |
| Week of Sept 15 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 6  HW: second attempt on Gp 6 practice problems  watch videos Classifying types of reactions, Predicting products  First attempt on practice problem sets in module | HW: make polyatomic ion flashcards, use Leitner method | Class: Group Assignment 7  HW: second attempt on Gp 7 practice problems  Watch videos on solubility 1 and precipitation 2-6  First attempt on practice problems in module |  | HW: Re-work Gp assignments 6 and 7  Use Leitner method with Polyatomic Ion flashcards |
| Week of Sept 22 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 8  HW: second attempt on Gp 8 practice problems  Watch videos on Concentration Units: Molarity and Acids and Bases; first attempt on Molarity and acid/base practice problems |  | Class: Group Assignment 9  HW: second attempt on Molarity and Acid-Base practice problems  Watch videos on Redox 1-3; first attempt on redox practice problem set |  | HW: re-work group assignments 8 and 9 |
| Week of Sept 29 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 10  HW: second attempt on redox practice problems  Watch videos on internal energy and review specific heat capacity and enthalpy 1; first attempt on practice problem sets for Gp 11 |  | Class: Group Assignment 11  HW: second attempt on practice problems  Watch videos on Enthalpy 2 and 3; first attempt on practice problem sets | HW: Take practice exam with only Pdc Table and Calculator  Note missed problems and connect to other similar problems; practice problems | HW: Review Unit 2 Equation and Definition sheet- try making a concept map or fishbone  Re-work group assignments 10 and 11 |
| Week of Oct 6 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 12  HW: second attempt on Gp 12 practice problem sets  Practice Leitner method on Polyatomic Ions flashcards | Study for Exam 2, re-work group assignment 12, take Practice exam again with only Periodic Table and calculator | Class: Exam 2 | HW: watch videos on Light and electrons, EM spectrum, Light wavelength and frequency; first attempt on practice problems | HW: Start making Unit 3 Equations and Definitions list |
| Week of Oct 13 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 13  HW: second attempt on practice problems  Watch videos electron configuration, Quantum Chemistry 1-5; first attempt on practice problem sets |  | Class: Group Assignment 14  HW: second attempt on practice problems  Watch videos on Valence electrons How to Count, How to Draw and Periodic Trends (3); first attempt on practice problems |  | HW: re-work group assignments 13 and 14 |
| Week of Oct 20 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 15  HW: second attempt on practice problems  Watch videos for Lewis 1-6, Bond lengths vs. strengths, Finding delta H from bond enthalpies; first attempt on practice problems |  | Class: Group Assignment 16  HW: second attempt on practice problems  Watch videos VSEPR 1-6; First attempt on practice problems | HW: practice Lewis and VSEPR  Take Practice exam with only Pdc Table and calculator and note problems missed  Practice problems like missed ones | HW: Re-work Gp assignments 15 and 16  Make a concept map or fishbone of Unit 3 Equation and Definition sheet |
| Week of Oct 27 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 17  HW: second attempt on practice problems | HW: Re-work Gp assignment 17  Study for exam 3 | Class: Exam 3 | HW: watch videos on Polar molecules  first attempt on practice problems | HW: start Unit 4 Equations and Definitions sheet |
| Week of Nov 3 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 18 (polar)  HW: watch videos on Hybridization 1-3, first attempt on hybridization problems; second attempt on polar practice |  | Class: Group Assignment 19 (hybrid)  HW: second attempt on hybridization practice problems  Watch videos for IMF 1-7; first attempt at IMF practice |  | HW: re-work group assignments 18 and 19 |
| Week of Nov 10 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 20- IMF  HW: Watch videos Gas Laws 1-3  First attempt on Gas laws practice problems second attempt on IMF practice problems |  | Class: Group Assignment 21- Gases  HW: second attempt at Gases practice problems  Watch videos Phase changes 1-4; first attempt on Phase changes practice problems | HW: take practice exam with only a Pdc Table and Calculator… you know the drill! | HW: re-work group assignments 20 and 21  Make a concept map or fishbone from Unit 4 Equations and Definitions list |
| Week of Nov 17 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 22  HW: second attempt on Phase Change practice problems | HW: study for exam, re-work group assignment 21 | Class: Exam 4 |  |  |
| November 24-28 is Thanksgiving- no classes | | | | |
| Week of Dec 1 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| Class: Group Assignment 23: Review Units 1 and 2 |  | Class: Group Assignment 24: Review Units 3 and 4 |  |  |
| Week of Dec 8 | | | | |
| Mon | Tues | Wed | Thurs | Fri |
| 8-10AM: Final Exam |  |  |  |  |