



University of North Texas
College of Science
Department of Chemistry
CHEM 1360
Context of Chemistry

COURSE INFORMATION

Greetings and Welcome to the 2019 Spring Semester of Chemistry 1360! My name is Dr. Sammer Tekarli and I'm excited to be your professor in this course.

I have a Ph.D. in Computational Chemistry which I completed at the University of North Texas in 2011. I have been teaching chemistry since 2005 and I have been around chemistry since 2000. I am quite passionate about student learning and doing my part to demonstrate the important role that chemistry plays in many aspects of our lives as you will see throughout this course. Best of luck throughout the semester! I look forward to getting to know you over the next few months.

Course Objectives:

- Use critical thinking, describe various aspects of atomic structure including isotopes and nuclear properties and periodic trends.
- Understand and determine types of bonding and the resultant compounds, including formulas and names.
- Classify and determine qualitatively and quantitatively various aspects of chemical and nuclear reactions, including mass relationships, energy, rates, half-life, and equilibrium.
- Qualitatively and quantitatively describe properties associated with the states of matter and solutions, including acids and bases.

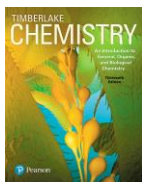
Instructor Contact Information

- Office location: Chemistry Building room 381
- Office hours: Friday 3:00 pm to 4:00 pm
- Email address: Sammer.Tekarli@unt.edu

Course Description

- 3 hours. Fundamentals of chemistry for students who are not science majors. Applications of chemistry to its role in the world. Topics include historical and philosophical development of modern chemistry, the environment, energy, industrial and economic development, modern materials, popular perspectives of chemistry. May not be counted toward a major or minor in chemistry. May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.

Materials



- No need to purchase the book or online access to homework and quizzes as the access to both the e-book and online access to homework and quizzes will be granted to all students at no cost.
- Textbook information: (Chemistry: An Introduction to General, Organic, and Biological Chemistry, Karen C. Timberlake, 2018, 13th Edition, Pearson)
- Other required materials: Pearson MyLab and Mastering for Online Homework and Quizzes

TECHNICAL REQUIREMENTS/ASSISTANCE

UIT Help Desk: <http://www.unt.edu/helpdesk/index.htm>

The University of North Texas provides student technical support in the use of Blackboard and supported resources. The student help desk may be reached at:

Email: helpdesk@unt.edu

Phone: 940.565-2324

In Person: Sage Hall, Room 130

Hours are:

- Monday-Thursday 8am-midnight
- Friday 8am-8pm
- Saturday 9am-5p
- Sunday 8am-midnight
- Hardware and software necessary to use CANVAS: <http://www.unt.edu/helpdesk/canvas/>
- Browser requirements: <https://clear.unt.edu/supported-technologies/canvas/requirements>
- Computer and Internet Literacy: http://clt.odu.edu/oso/index.php?src=pe_comp_lit
- Other related hardware or software necessary for the course: such as headset/microphone for synchronous chats, word processor, etc.

Minimum Technical Skills Needed

Using the learning management system - CANVAS, using email with attachments, creating and submitting files in commonly used word processing program formats, downloading and installing software, using spreadsheet programs, etc.

Student Academic Support Services

- [Academic Resources](#): where to buy textbooks and supplies, access academic catalogs and programs, register for classes, and more
- [Code of Student Conduct](#): provides Code of Student Conduct along with other useful links

- [Office of Disability Accommodation](#): exists to prevent discrimination based on disability and to help students reach a higher level of independence
- [Counseling and Testing Services](#): provides counseling services to the UNT community, as well as testing services; such as admissions testing, computer-based testing, career testing, and other tests
- [UNT Libraries](#): library services
- [UNT Learning Center](#): provides a variety of services, including tutoring, to enhance the student academic experience
- [UNT Writing Center](#): offers free writing tutoring to all UNT students, undergraduate and graduate
- [Succeed at UNT](#): information regarding how to be a successful student at UNT

COMMUNICATING WITH YOUR INSTRUCTOR

It is best to reach me through email with any concerns or questions. Response to email is usually within 48 hours on weekdays and by the next business day on weekends. If I am away, response to email is usually within 48 hours of my return.

Grades of (exams, homework, quizzes) will be posted after all students complete the exam. For example, grades of all material of exam 1 which includes all homework and quiz assignments of exam 1 will be posted after the last student submit exam 1.

HOW TO SUCCEED IN THIS COURSE

To succeed in this course, students must be self-motivated, willing to learn, and keep up with the reading schedule and homework and quizzes deadlines. Here are some steps to get you started:

1. Download and Follow the "Chapter Objectives and Study Guide"
 - a. Access the e-book through MyLab and Mastering through CANVAS
 - b. Complete the required sections as outlined in the syllabus which includes: reading, completing exercises, watching videos and/or animations
2. Complete the homework and quizzes as you finish reading each section
3. Send an email with any questions to the instructor
4. If needed, come to office hours on Friday between 3:00 pm to 4:00 pm at the Chemistry Building room 381.

ASSESSMENT & GRADING

Assessments

Exams: four exams will be given during the semester. Each exam will consist of multiple-choice and will be closed-book. The exam will be administered at the main campus testing center (more details will be provided in an announcement) during the time window given in the syllabus. Missing an exam for any reason will result in a score of zero.

Final Exam: a closed-book comprehensive exam which consists of all the material covered in the class during the entire semester and is mandatory. Missing the final exam will result in a score of zero. However, if the score on the final exam is higher than the lowest exam score, then it will replace the lowest exam score.

Homework: Homework will be assigned on the MyLab & Mastering® online. Homework assignments are worth 25 points each and the lowest grade will be dropped. Homework total grade will be based on the total percent accumulated divided by the maximum total percent of all homework assignments.

Quizzes: Quizzes will be assigned on the MyLab & Mastering® online. Quizzes are worth 25 points each and the lowest quiz grade will be dropped. There will be no make-up quizzes. Quiz total grade will be based on the total percent accumulated divided by the maximum total percent for all quizzes. Quizzes will be based on the homework questions and the material covered in the lectures.

Grading

Assignment	Points Possible	Percentage of Final Grade
Exam 1	100 points	10%
Exam 2	100 points	10%
Exam 3	100 points	10%
Exam 4	100 points	10%
Final Exam	100 points	10%
Homework Assignments: • 10 Assignments at 25 points each	250 points	25%
Quiz Assignments: • 10 Assignments at 25 points each	250 points	25%
Total Points Possible	1000 points	100%

Total Points Possible for Semester/Grading Scale = 1000

1000-900 = A
899-800 = B
799-700 = C
699-600 = D
599-500 = F

TENTATIVE COURSE CALENDAR:

The dates for tests are tentative and may be later than what is scheduled

Date	Section	Topics
January 14 th	...	Login to Canvas; Meet Your Professor; Syllabus; Online Assignment Registration; The Basics for Students New to Canvas; Getting Help; Technical Requirements and Skills; Sign the Agreement
January 16 th	1.1 to 1.3	Chemistry and Chemicals; Scientific Method: Thinking Like a Scientist; Studying and Learning Chemistry
January 18 th	1.4 & 1.5	Key Math Skills for Chemistry; Writing Numbers in Scientific Notation
	Complete Homework and Quiz for Chapter 1	
January 21 st MLK Day (no classes; university closed)		
January 21 st	...	MLK Day – No classes – University Closed
January 23 rd	2.1 to 2.3	Units of Measurement; Measured Numbers and Significant Figures; Significant Figures in Calculations
January 25 th	2.4 to 2.6	Prefixes and Equalities; Writing Conversion Factors; Problem Solving Using Unit Conversion
January 28 th	2.7	Density
	Complete Homework and Quiz for Chapter 2	
January 30 th	3.1 to 3.2	Classification of Matter; States and Properties of Matter

Date	Section	Topics
February 1 st	3.3 to 3.7	Energy; Energy and Nutrition; Specific Heat; Changes of State
	Complete Homework and Quiz for Chapter 3	
February 4 th	4.1 to 4.3	Elements and Symbols; The Periodic Table; The Atom
February 6 th	4.4 & 4.5	Atomic Number and Mass Number; Isotopes and Atomic Mass
February 8 th	4.6 & 4.7	Electron Energy Levels; Trends in Periodic Properties
	Complete Homework and Quiz for Chapter 4	
EXAM 1 February 9 th –14 th Chapter 1, 2, 3, & 4		
February 11 th	...	Studying or Taking Exam 1
February 13 th	...	Studying or Taking Exam 1
February 14 th Last day to take Exam 1 + Complete Homework + Quiz For chapter 1, 2, 3, & 4 by midnight		
February 15 th	6.1 & 6.2	Ions: Transfer of Electrons; Ionic Compounds
February 18 th	6.3 & 6.4	Naming and Writing Ionic Formulas; Polyatomic Ions
February 20 th	6.5	Molecular Compounds: Sharing Electrons
February 22 nd	6.6	Lewis Structure for Molecules

Date	Section	Topics
February 25 th	6.7	Electronegativity and Bond Polarity
February 27 th	6.8	Shapes of Molecules
March 1 st	6.9	Polarity of Molecules and Intermolecular Forces
	Complete Homework and Quiz for Chapter 6	
EXAM 2 March 2 nd - 10 th Chapter 6		
March 4 th	...	Studying or Taking Exam 2
March 6 th	...	Studying or Taking Exam 2
March 8 th	...	Studying or Taking Exam 2
March 10 th Last Day to Take Exam 2 + Complete Homework + Quiz For chapter 6 by midnight		
March 11 th -15 th Spring Break (no classes; university closed)		
March 11 th	...	Spring Break – No classes – University Closed
March 13 th	...	Spring Break – No classes – University Closed
March 15 th	...	Spring Break – No classes – University Closed
March 18 th	7.1	The Mole

Date	Section	Topics
March 20 th	7.2 & 7.3	Molar Mass; Calculations Using Molar Mass
March 22 nd	7.4 – 7.6	Equations for Chemical Reactions; Types of Chemical Reactions; Oxidation-Reduction Reactions
March 25 th	7.7 & 7.8	Mole Relationships in Chemical Equations; Mass Calculations for Chemical Reactions
March 27 th	7.9	Energy in Chemical Reactions
	Complete Homework and Quiz for Chapter 7	
EXAM 3 March 28 th – April 4 th Chapter 7		
March 29 th	...	Studying or Taking Exam 3
April 1 st	...	Studying or Taking Exam 3
April 3 rd	...	Studying or Taking Exam 3
April 4 th Last Day to Take Exam 3 + Complete Homework + Quiz For chapter 7 by midnight		
April 5 th	8.1 – 8.5	Properties of Gases; Pressure and Volume (Boyle's Law); Temperature and Volume (Charles's Law); Temperature and Pressure (Gay-Lussac's Law); The Combined Gas Law
April 8 th	8.6 & 8.7	Volume and Moles (Avogadro's Law); Partial Pressures (Dalton's Law)

Date	Section	Topics
	Complete Homework and Quiz for Chapter 8	
April 10 th	9.1 – 9.3	Solutions; Electrolytes and Nonelectrolytes; Solubility
April 12 th	9.4	Solution Concentrations
	Complete Homework and Quiz for Chapter 9	
April 15 th	10.1 – 10.3	Acids and Bases; Brønsted-Lowry Acids and Bases; Strengths of Acids and Bases
April 17 th	10.6	The pH Scale; Reactions of Acids and Bases; Buffers
	Complete Homework and Quiz for Chapter 10	
EXAM 4 April 18 th – 25 th Chapter 8, 9, & 10		
April 19 th	...	Studying or Taking Exam 4
April 22 nd	...	Studying or Taking Exam 4
April 24 th	...	Studying or Taking Exam 4
April 25 th Last Day to Take Exam 4 + Complete Homework + Quiz For chapter 8, 9, & 10 by midnight		
April 26 th	5.1 & 5.2	Natural Radioactivity, Nuclear Reactions

Date	Section	Topics
April 29 th	5.3 & 5.4	Radiation Measurement; Half-Life of a Radioisotope
May 1 st	5.5 & 5.6	Medical Applications Using Radioactivity; Nuclear Fission and Fusion
	Complete Homework and Quiz for Chapter 5	
May 4 th -10 th Comprehensive Final Exam		
May 9 th Last Day to Submit Homework and Quiz for Chapter 5 by midnight		
May 10 th Last Day to Take Comprehensive Final Exam		

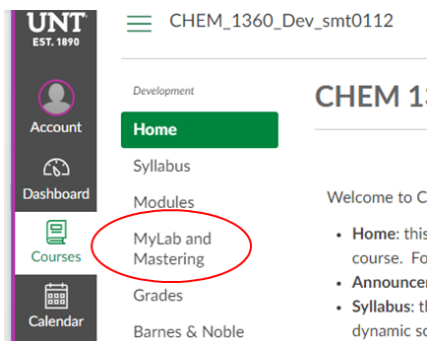
COURSE EVALUATION

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 [insert administration dates] 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) 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 at <http://spot.unt.edu/> or email spot@unt.edu.

COURSE POLICIES

Assignment Policy

All assignments (homework and quizzes) will be completed on the Pearson MyLab and Mastering. To access, students must login to CANVAS and click on “MyLab and Mastering” as shown below:



Due dates are on the syllabus schedule and are also available when you login to “MyLab and Mastering”

The University is committed to providing a reliable online course 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 extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and contact the UNT Student Help Desk: helpdesk@unt.edu or 940.565.2324. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

Examination Policy

- *All exams will be completed online*
- *All exams will require “LockDown Browser.”. The student can also go to the testing center at the Main Campus in Denton at the Sage Hall Testing Center (Room C330, third floor, across the hall from the elevator).*
- *All Exams will only have one attempt and will be timed.*

Late Work

Late work, homework, quizzes, and exams will not be accepted beyond the deadlines. The lowest homework and quiz assignment will be dropped at the end of the semester. There will be no makeup exams for missed exams. The Final will replace the lowest exam grade if it is higher than the exam grade.

WITHDRAWAL INFORMATION

Jan. 29 th to Apr. 1 st	Student may drop a course with a grade of W by completing the Request to Drop Class form and submitting it to the Registrar's Office
Apr. 1 st	Last day to drop a course
Apr. 19 th	Last day to withdraw from the semester. Process must be completed by 5 p.m. in the Dean of Students Office.

*Detailed Academic Calendar can be found at:

<http://catalog.unt.edu/content.php?catoid=20&navoid=2120>

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. [Insert specific sanction or academic penalty for specific academic integrity violation.]

ADA Policy

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 at disability.unt.edu.

Course Safety Procedures (for Laboratory Courses)

Students enrolled in [insert class name] are required to use proper safety procedures and guidelines as outlined in UNT Policy 06.038 Safety in Instructional Activities. While working in laboratory sessions, students are expected and required to identify and use proper safety guidelines in all activities requiring

lifting, climbing, walking on slippery surfaces, using equipment and tools, handling chemical solutions and hot and cold products. Students should be aware that the UNT is not liable for injuries incurred while students are participating in class activities. All students are encouraged to secure adequate insurance coverage in the event of accidental injury. Students who do not have insurance coverage should consider Standard Syllabus Statements Related Policy 06.049 Course Syllabi Requirements obtaining Student Health Insurance. Brochures for student insurance are available in the UNT Student Health and Wellness Center. Students who are injured during class activities may seek medical attention at the Student Health and Wellness Center at rates that are reduced compared to other medical facilities. If students have an insurance plan other than Student Health Insurance at UNT, they should be sure that the plan covers treatment at this facility. If students choose not to go to the UNT Student Health and Wellness Center, they may be transported to an emergency room at a local hospital. Students are responsible for expenses incurred there.

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 Blackboard 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 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. The Code of Student Conduct can be found at deanofstudents.unt.edu/conduct.

Access to Information - Eagle Connect

Students' access point for business and academic services at UNT is located at: 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: eagleconnect.unt.edu/

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 [insert administration dates] 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) 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 at <http://spot.unt.edu/> or email 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 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 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 at <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) 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](#).

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.