

**University of North Texas at Dallas**  
**FALL 2016**  
**SYLLABUS**

<b>CHEM 1410: General Chemistry</b>		<b>3Hrs</b>	
<b>Department of</b>	<b>Life and Health Sciences</b>	<b>Division of</b>	<b>Liberal Arts and Sciences</b>
<b>Instructor Name:</b>	Dr. Muhammed Yousufuddin		
<b>Office Location:</b>	DAL2 252		
<b>Office Phone:</b>	972-338-1528		
<b>Email Address:</b>	myousuf@untdallas.edu		
<b>Office Hours:</b>	T: 9-10 am, 1-3 pm; W: 3:30-5:30 pm; Th: 9-10 am		
<b>Virtual Office Hours:</b>	N/A		
<b>Classroom Location:</b>	TBA		
<b>Class Meeting Days &amp; Times:</b>	TTh 4-5:20 pm, Th 3-3:50 pm		
<b>Course Catalog Description:</b>	Fundamental concepts, states of matter, periodic table, chemical structure and bonding, stoichiometry, oxidation and reduction, solutions and compounds of representative elements.		
<b>Prerequisites:</b>	Math 1100 D or equivalent		
<b>Co-requisites:</b>	CHEM 1430		
<b>Required Text:</b>	Chemistry: A Molecular Approach 3rd Edition (Nivaldo Tro)		
<b>Recommended Text and References:</b>	N/A		
<b>Access to Learning Resources:</b>	UNT Dallas Library: phone: (972) 338-1616; web: <a href="http://www.untdallas.edu/our-campus/library">http://www.untdallas.edu/our-campus/library</a> UNT Dallas Bookstore: phone: (972) 780-3652; e-mail: <a href="mailto:1012mgr@fheg.follett.com">1012mgr@fheg.follett.com</a>		
<b>Course Goals or Overview:</b>	To give students a foundation in scientific thought and process while developing an understanding of fundamental concepts in chemistry, states of matter, periodic table, chemical structure and bonding, stoichiometry, oxidation and reduction, solutions and compounds of representative elements.		
<b>Learning Objectives/Outcomes:</b>	At the end of this course, the student will		
1	Be able to perform calculations related to chemistry.		
2	Distinguish between pure substances (elements and compounds) and mixtures (heterogeneous vs. homogenous).		
3	Be able to name ionic and covalent compounds.		
4	Demonstrate knowledge of molecular shapes; polarity; and oxidation-reduction reactions.		
5	Demonstrate understanding of acid-base reactions; precipitation reactions and be able to write net ionic equations for each.		
6	Be able to determine the amount of heat required by or given off by chemical and physical processes.		
7	Develop skills in scientific reasoning and experimental design.		
8	Develop skills in scientific writing.		
9	Practice and demonstrate competence of Common Core Objectives including critical thinking skills, communication skills, empirical and quantitative skills and teamwork		

## Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated in class.

TOPICS	TIMELINE	Other deadlines
Chapter 1: Matter Measurement and Problem Solving	Week of 8/22/16	
Chapter 2: Atoms and Elements	Week of 8/29/16	HW 1
Chapter 3: Molecules, Compounds, and Chemical Eqns	Week of 9/5/16	HW 2
Chapter 4: Chemical Quantities and Aqueous Rxns/ <b>Test 1</b>	Week of 9/12/16	HW 3
Continue Chapter 4/ Chapter 5: Gases	Week of 9/19/16	
Continue Chapter 5	Week of 9/26/16	HW 4
<b>Test 2</b> / Chapter 6: Thermochemistry	Week of 10/3/16	HW 5
Continue Chapter 6/ Chapter 7: The Quantum Mechanics	Week of 10/10/16	HW 6
Continue Chapter 7/ Chapter 8: Properties of the Elements	Week of 10/17/16	JAR due 10/20
Continue Chapter 8	Week of 10/24/16	HW 7
<b>Test 3</b> / Chapter 9: Chemical Bonding I: Lewis Theory	Week of 10/31/16	HW 8
Continue Chapter 9/ Chapter 10: Chemical Bonding	Week of 11/7/16	HW 9
Continue Chapter 10/CIN presentation	Week of 11/14/16	CIN oral on 11/17
<b>Test 4</b> / Ch. 11: Liquids Solids and Intermolecular Forces	Week of 11/21/16	HW 10
Continue Chapter 11	Week of 11/28/16	HW 11
<b>FINAL EXAM</b>	<b>TBA</b>	

## Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

### Four Exams and one Final Exam

**Chapter Homework** – assigned problems from *Mastering Chemistry*

**Journal Article Review** – a synthetic summary and review of a recently published journal article following the guidelines provided in the grading rubric.

**Chemistry in the News Presentation**- a synthetic review of a recent news article relating to the study of chemistry (as a group presentation)

### Grading Matrix:

Instrument	Value (points or percentages)	Total
Exams	4 exams @ 100 pts ea	400
Final Exam	200 pts	200
Chapter Homework	11 @ 10 pts ea	100
Journal Article Review	50 pts ea	50
CIN Group Presentation	50 pts ea	50
<b>Total:</b>		<b>800</b>

### Grade Determination will use the following guidelines:

A = 800 – 716 pts; i.e. 90% or more

B = 715 – 636 pts; i.e. 80 – 89 %

C = 635 -- 556 pts; i.e. 70 – 79 %

D = 555 – 476 pts; i.e. 60 – 69 %

F = 475 pts or below; i.e. less than 60%

## **University Policies and Procedures**

**Students with Disabilities (ADA Compliance):** The University of North Texas at Dallas makes reasonable academic accommodation for students with disabilities. Students seeking accommodations must first register with the Disability Services Office (DSO) to verify their eligibility. If a disability is verified, the DSO will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, DSO 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/communicate with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Disability Services Office website at <http://www.untdallas.edu/disability>. You may also contact them by phone at 972-338-1777; by email at [UNTDdisability@untdallas.edu](mailto:UNTDdisability@untdallas.edu) or at Founders Hall, room 204. (UNTD Policy 7.004)

**CourseEval Policy:** Student's evaluations of teaching effectiveness is a requirement for all organized classes at UNT Dallas. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider students' evaluations to be an important part of your participation in this class.

**Assignment Policy:** According to the instructor's discretion while working in concert with the division/program's guidelines).

**Exam Policy:** (*Discuss any special instructions relating to exams-sample given*): Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook).

**Academic Integrity:** Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Academic Integrity (Policy 7.002) at [http://www.untdallas.edu/sites/default/files/page\\_level2/pdf/policy/7.002%20Code%20of%20Academic Integrity.pdf](http://www.untdallas.edu/sites/default/files/page_level2/pdf/policy/7.002%20Code%20of%20Academic%20Integrity.pdf) Refer to the Student Code of Student Rights, Responsibilities and Conduct at [http://www.untdallas.edu/sites/default/files/page\\_level2/hds0041/pdf/7\\_001\\_student\\_code\\_of\\_conduct\\_may\\_2014.pdf](http://www.untdallas.edu/sites/default/files/page_level2/hds0041/pdf/7_001_student_code_of_conduct_may_2014.pdf) Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. In addition, all academic work turned in for this class, including exams, papers and written assignments must include the following statement: "*On my honor, I have not given, nor received, nor witnessed any unauthorized assistance that violates the UNTD Academic Integrity Policy.*"

**Bad Weather Policy:** Campus facilities will close and operations will be suspended when adverse weather and/or safety hazards exist on the UNTD campus or if travel to the campus is deemed dangerous as the result of ice, sleet or snow. In the event of a campus closure, the Marketing and Communication Department will report closure information to all appropriate major media by 7 a.m. That department will also update the UNTD website, Facebook and Twitter with closing information as soon as it is possible. For more information please refer to <http://www.untdallas.edu/police/resources/notifications>

**Attendance and Participation Policy:** (*Discuss your attendance and participation policy.*)

The University attendance policy is in effect for this course. Please refer to Policy 7.005 Student Attendance at <http://www.untdallas.edu/hr/upol>

**Diversity/Tolerance Policy:** Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive and inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Dean of Students as the instructor deems appropriate. (UNTD Policy 7.001)