

**University of North Texas at Dallas
Spring 2013
SYLLABUS**

CHEM 1440D: General Chemistry II Lab, 1 credit hour			
Department of	Life & Health Sciences	Division of	Liberal Arts & Life Sciences
Instructor Name:	Donna L. Chevalier		
Office Location:	305 , Founder's Hall		
Office Phone:	972-338-1501 Dept (messages only)		
Email Address:	donna.chevalier@unt.edu		
Office Hours:	2:00 - 3:00 pm Sat ; 1:00 - 2:00 pm Mon ; 2:00 - 3:00 pm Wed (if you need another time, please email or see me before /after class to make arrangements)		
Virtual Office Hours:	<i>N/A</i>		
Classroom Location:	Lab Lecture - DAL2 304 ; Laboratory - DAL2 247		
Class Meeting Days & Times:	Lab Lecture	Th 11:30 am - 12:20 pm	
	Laboratory	Th 1:00 pm - 3:50 pm	
Course Catalog Description:	Laboratory techniques, weighing, errors and significant figures, identification and purification of substances, and elementary quantitative analysis. Quantitative, gravimetric and volumetric analyses. Coordination compounds.		
Prerequisites:	CHEM 1430D		
Co-requisites:	CHEM 1410D and /or CHEM 1420D		
Required Text:	Acree, Jr. <i>Modern General Chemistry Laboratory: Incorporating Computer - Oriented Data Acquisition and Evaluation Approach into the Student Laboratory Experience. Eagle Images (2007).</i>		
Recommended Text & References:			
Access to Learning Resources:	UNT Dallas Library: phone: (972) 780-3625; web: http://www.unt.edu/unt-dallas/library.htm UNT Dallas Bookstore: phone: (972) 780-3652; e-mail: 1012mgr@fheg.follett.com		
Course Goals or Overview:			
	Upon successful completion of this course, the student should be able to: 1. Demonstrate proficiency in basic chemical laboratory techniques. 2. Be able to work safely with laboratory glassware, equipment and chemicals 3. Demonstrate ability to accurately recording data and observations, and to summarize and interpret experimental results.		
Core Learning Objectives/Outcomes:			
1	Explore the natural sciences.		
2	Be able to locate, evaluate and organize information including the use of information technologies.		
3	Be able to think critically and creatively, and learn to apply different systems of analysis.		
4	Develop problem solving skills that incorporate multiple viewpoints and differing contexts in their analysis.		
5	Cultivate intellectual curiosity and self-responsibility, building a foundation for life-long learning.		
6	Engage with a variety of others in thoughtful and well-crafted communication.		
7	Broaden and refine their thinking as a part of the give and take of ideas, seeking to better understand other's perspectives as well as their own.		

Learning Objective/Outcome Assessments:

These learning objectives/outcomes noted on pg 1 will be assessed through specific assignments given during the semester. These include:

1. Collaborative, weekly laboratory experiments with required formal laboratory reports.
2. Individual, weekly laboratory quizzes

Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated by the instructor during regularly scheduled class period or via Blackboard. If you are absent, it is your responsibility to contact the instructor or classmates to determine any changes. Lab experiment information is available on Blackboard and it is the responsibility of the student to download and print any material/data sheets prior to coming to the laboratory lecture/laboratory the day of the scheduled experiment.

TOPICS for LAB LECTURE/LABORATORY (Tentative lab schedule; subject to change)	TIMELINE
Laboratory safety / Safety quiz , no experiment	1/17
Experiment 13: Chemical Kinetics I	1/24
Experiment 14: Acetic acid concentration in vinegar	1/31
Experiment 15: pH- titration	2/7
Experiment 17: pKa determination	2/14
Experiment 18: Acids & bases in common household products	2/21
Experiment 19: Beer's Law	2/28
Experiment 20: Chemical Kinetics II	3/7
Spring Break - NO LAB 3/14	3/11 - 3/17
Experiment 21: Equilibrium constant for complex formation	3/21
Experiment 22: Molar solubility and solubility product	3/28
Experiment 23: Redox titration	4/4
Experiment 25: Electrochemistry	4/11
Mandatory Lab Cleanup/Check Out : Last lab report is due	4/18
No laboratory	4/25
No laboratory	5/2

Course Evaluation Methods

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

****Lab Reports:** Each lab report is worth 100 points. Lab Reports will consist of a formal written report from each individual student that performs the laboratory experiment in its entirety.

The three main parts will include:

1. Introduction
 - a) State the goal/objective of the lab performed
 - b) Give a brief introduction on the theory behind & importance of the lab
 - c) Succinct and complete list of procedures and materials used in the lab
2. Data /Results/Calculations
 - a) All data collected (include data sheets from lab handouts) and include any tables or graphs as needed
 - b) Answer any and all questions posed in lab handout.
 - c) Perform and show all necessary calculations
3. Conclusions/Summary / References
 - a) Analyze your work and give conclusions
 - b) Cite all works using APA style used in preparing for this lab (include at least 3 references)

****Lab Quizzes:** Short (~10 min) quizzes designed to assess how well students have prepared for the week's lab by reading the background information/theory and procedures. Quizzes will be given during lab lecture held immediately prior to laboratory.

Grading Matrix:		
Instrument	Comments	Value (%)
Lab Reports	11 Lab Reports (Lowest 1 dropped)	85
Lab Quizzes	11 Lab Quizzes (Lowest 1 dropped)	15
	Total	100

Grade Determination:

- A = 89.5 or better
- B = 79.5 - 89.4 %
- C = 69.5 - 79.4 %
- D = 59.5 - 69.4 %
- F = 59.4 or less %

University Policies and Procedures

Students with Disabilities (ADA Compliance):

The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (ADA). Students' with documented disabilities are responsible for informing faculty of their needs for reasonable accommodations and providing written authorized documentation. Grades assigned before an accommodation is provided will not be changed as accommodations are not retroactive. For more information, you may visit the Student Life Office, Suite 200, Building 2 or call the student life office at 972-780-3632. You may also contact: Patricia Quiñones, Career Development Coordinator, 972.338.1781 , 972.338.1789 (fax) patricia.quinones@unt.edu

Student Evaluation of Teaching Effectiveness Policy:

The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. 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 the SETE to be an important part of your participation in this class.

Attendance and Participation Policy:

The University attendance policy is in effect for this course. **Class attendance and participation is expected** because the class is designed as a shared learning experience and because essential information not in the textbook/lab experimental handouts will be discussed in class. The dynamic and intensive nature of this course makes it impossible for students to make-up or to receive credit for missed classes. Attendance and participation in all class meetings is essential to the integration of course material and your ability to demonstrate proficiency. Students are responsible to notify the instructor if they are missing class and for what reason. Students are also responsible to make up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the lab notes, if they are absent.

Attendance will be taken at the beginning of each class, both lab lecture and laboratory. You will NOT be graded on attendance/participation. However, you **MUST** attend the lab and complete a laboratory experiment in its entirety to be allowed to submit a laboratory report for a grade.

****Due to safety, preparation, and scheduling issues, there are no planned make-up laboratories. If you miss one lab, it will count as a drop. If you have additional excusable/verifiable absences (due to severe illness, death of a close family member or friend, jury duty, pre-planned official university activity, etc.), the instructor MAY make arrangements for a makeup laboratory. Otherwise, a missed laboratory will result in a zero for that experiment.****

Assignment Policy:

Experiments in the lab will be conducted in groups of 2-3 students. Collaboration between group members (and/or between different groups) is limited to performing the procedures and recording observations and data. **Students are expected to interpret data, perform calculations and answer discussion questions on an individual basis.** You may not miss the lab, copy data from your team members and turn in a lab report. This will NOT be acceptable. You MUST be present and perform the lab to be allowed to turn-in a lab report for that day.

Lab Reports are due the week after the procedures and data collection for an experiment are complete, unless otherwise instructed. In cases where data must be shared between groups, this deadline may be extended at the discretion of the instructor. The lab report must be turned in no later than the end of the lab in which it is DUE.

***Regarding Late Laboratory Reports:

No late laboratory reports will be accepted after the scheduled due date without obtaining prior authorization AND proving validity of absence (**absence must be due to extenuating circumstances such as severe illness, death of a close family member or friend, jury duty, pre-planned official university activity, etc**) .

Experimental results will be recorded *during* the lab, and must be viewed and initialed by the instructor prior to the student LEAVING the lab, on the day the lab experiment is performed. If my initials are not on your completed DATA sheets that will be included in the lab report, there will be a 10 point grade deduction. Students must clean their area before I will sign them out for the completion of the lab.

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 at [http://www.unt.edu/unt-dallas/policies/Chapter%2007%20Student%20Affairs,%20Education,%20and%20Funding/7.002%20Code%20of%20Academic Integrity.pdf](http://www.unt.edu/unt-dallas/policies/Chapter%2007%20Student%20Affairs,%20Education,%20and%20Funding/7.002%20Code%20of%20Academic%20Integrity.pdf) for complete provisions of this code.

In addition, all academic work submitted for this class, including exams, papers, and written assignments should 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:

On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website www.unt.edu/dallas. Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

Diversity/Tolerance Policy:

Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & 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 Office of Student Life as the instructor deems appropriate.

Other Course Policies:

LAB ATTIRE :

Students **must** dress appropriately for lab and **WILL** be asked to leave if these basic rules are not followed:

- **No open toed shoes.** No sandals, flip-flops, or any other shoe that is cut in such a way to reveal your toes. **You MUST wear closed toe shoes every time!** No one will be allowed to remain in lab areas without proper shoes. This includes **regular lab days or labs without experiments.**

SPECIFICS ABOUT CLOSED TOE SHOES:

- To clear up any confusion, please adhere to the following regarding allowed/disallowed student shoes in lab:
1. Shoes must be made of solid piece of material, leather or canvas only and must fully cover all toes. Tennis shoes/sneakers are fine
 2. Shoes that MAY NOT be worn:

- A. Woven sandals (even if toes are closed)
- B. Crocs with holes in upper foot covering (even if toes are closed)
- C. Bedroom slippers
- D. Ballerina scuffs OR slippers or other low cut instep shoes
- E. Any shoe that will allow toxic or hazardous materials to directly pass to foot, and possibly causing injury, including sandals and flip flops.
 - If a chemical can be easily absorbed into the material (such as cotton) or may be spilled directly on foot (through holes or openings in shoe), the shoe is not allowed to be worn in lab.
 - If broken glass, scalpel blades or other sharp objects can easily penetrate the shoe material and cause injury or if holes or openings in the shoes will allow passage of chemicals and sharp objects, the shoe is not allowed to be worn in lab.

- No shorts. **Long pants ONLY!!** Blue jeans are the best type of pants to wear in the laboratory.
- **Always** wear goggles while in the lab and conducting experimental work. ANSI approved chemical splash goggles (indirectly vented) will be required.

LAB RULES

Students **must** obey all laboratory guidelines while in the lab. Failure to do so will result in **immediate dismissal** from lab and the student will receive a grade of zero for this lab. Below is a list of the basic lab rules that **must** be followed.

1. No eating or drinking in the laboratory. No food or drinks allowed in the lab. Leave any food or drink outside of the lab by the lab door.
2. No chewing gum while in the laboratory. No smoking in the lab.
3. Do not put makeup on in the lab, including lipstick or powder.
4. All long hair must be tied back in a pony-tail or pulled back away from the face and secured with combs/ bobbie pins, when using Bunsen burners.
5. Students are not allowed to work in the lab without the instructor being present.
6. Students will keep their work area clean and orderly while conducting the experiment and leave their bench clean and ready for the next class. The instructor will initial work only after the lab is completed and work area cleaned.
7. No horseplay allowed in the lab. No disruptions will be tolerated during the course of the laboratory.
8. No children allowed in the lab.
9. Students must be properly dressed (as noted above in Lab Attire) in order to be allowed to perform the day's experiment.
10. Students will always wear goggles while conducting an experiment in the laboratory
11. Students will wash their hands before leaving the lab.
12. Students will follow all instructions regarding the safe completion of the laboratory; if not you may be asked to leave.
13. Students will NOT conduct unauthorized experimental work that is not a part of the scheduled laboratory.
14. No lab supplies such as chemicals, materials or equipment will be removed from the laboratory.
15. Students will notify the instructor, immediately, if they receive a cut or injury in the lab.
16. Students will notify the instructor, immediately, if they break a piece of glassware, so it can be properly disposed. Never use broken, chipped or cracked glassware during an experiment.
17. Students will notify the instructor, immediately, if a chemical or solution is spilled, so that it can be cleaned up properly.
18. All waste will be disposed of as directed by the lab instructor.
19. All glassware will be cleaned after the end of the lab and put away before leaving the lab.
20. All purses and backpacks will be kept out of the aisles in the lab and off the lab benches while conducting the day's laboratory experiment.

LABORATORY EXPECTATIONS

Laboratory Courtesy

- Any disruptive behavior that interrupts the educational process will **not** be tolerated. You WILL be asked to leave and may not return until you have met with me to discuss your behavior.
- **You will be expected to turn off (or have turned onto vibrate)all cell phones, pagers, IPODS, PDA's, etc for the duration of the laboratory period. You may NOT use any of your devices such as an IPHONE or laptop in lieu of a calculator. You must have a regular calculator to use during the laboratory. No Exceptions !!!!**

Be prompt.

- If you are late for the lab lecture, and miss the quiz, you will **not** be allowed to take the quiz.
- Students who are late to the laboratory class will not be given extra time for completion of their work.

Be prepared.

You are expected to be prepared for the scheduled laboratory by having read the entire experiment and be ready to perform it.

Practicing Good Laboratory Technique

1. Practicing good overall **lab safety**, such as wearing lab goggles at all appropriate times , wearing proper clothing/shoes and not eating/ drinking/nor bringing any food /beverages in the lab.
2. Handling, Using and Disposing of all chemicals/solutions safely!
3. Following the correct experimental procedure. (Ex. Do not mix chemicals unless the procedure calls for it.)
4. **Actively participating** in the experimental procedure. (Don't let one person do all the work and everyone else copy it. All team members will be docked.)
5. Using **good** lab technique, such as no excessive breakage of glassware, being careful/observant in your work and using equipment properly.
6. Being neat/ clean in the lab, including:
 - o Keeping your work area clean and orderly during the lab.
 - o **Cleaning up your work area after completion of the lab.** Clean and return all equipment and glassware to its proper storage area. Wipe down your work area with paper towels and discard appropriately. Take care to dispose of any chemicals properly.
 - o Keep all common areas such as balances, hoods or supply trays/ carts clean and orderly.

Cell phone policy

Do not use your cell phone in class; this includes calling, texting, internet surfing, and gaming. If your cell phone must be on during class, apply its "silent" settings. If you keep your phone on during class time, do not keep it on top of the table you are sitting at, please keep it in your pocket, purse, or bag. If your phone rings during a lab quiz , even if the silent setting has been applied, you must turn in your lab quiz immediately. **A cell phone may NOT be used in lieu of a calculator.**

Laptop policy

You may use your laptop in lab lecture/laboratory to take notes or record , store &/or graph lab data. If it becomes apparent that laptops are being used by the class for activities other than the laboratory work, all laptop use will be prohibited during the lab lecture/laboratory class time. Laptops are not to be used during quizzes. If you bring a laptop to the lab lecture, it must remain in a bag and under the table while we take our lab quiz. **A Laptop may NOT be used in lieu of a calculator.**

Cheating and plagiarism

Cheating will not be tolerated in this course. If you are found cheating on an lab assignment or lab quiz, you will not receive credit for the assignment/quiz, and student services will be notified. Cheating includes using unauthorized material or devices on a quiz, the work of another individual without proper citations, using larger portions of another's work, even with proper citations, and copying the work of a classmate. [There are no exceptions to this policy.](#)

BLACKBOARD:

BLACKBOARD will be used extensively. Each lab experiment handout will be posted on BLACKBOARD . Other important files will also be uploaded to BLACKBOARD for your use. All grades will be maintained in Blackboard .

Communication

I will use Blackboard to post laboratory experiment handouts and supplemental information. I may also email the class occasionally, so please check your university email regularly. If you prefer emails be sent to a non-university account, please provide that to me as soon as you can.

I check my emails frequently, and will normally respond within 24 - 48 hours.

Grade of "Incomplete"

If a student is unable to complete the course due to extenuating circumstances, a grade an incomplete grade "I" may be assigned: The student must have attended class regularly up to **April 19th, 2013** with a passing grade and arrangements must be made with me before the end of the semester. Also note the University will automatically change a grade of "I" to an "F" at the end of the next term, so the missed work must be made up before that time.

Important Dates:

*******To Withdraw from the Semester (Drop All Courses)**** - Friday, April 19, 2013**

Effective Fall 2012, students wanting to withdraw from the semester (drop ALL [courses for](#) the semester) must do so at the Dean of Student's Office.

[Dean of Student's Office Withdrawal Information](#) The following chart shows important dates related to withdrawal:

Date(s)	Details
Registration - January 28, 2013	Registration for the semester is noted on the student's transcript, but individual courses are not listed.
Januray 29 - February 22, 2013	An automatic grade of W is assigned.
February 25 - April 19, 2013	A grade of W or WF is assigned for all courses as appropriate. Refer to the Graduate or Undergraduate catalog for more information.