

University of North Texas at Dallas

Spring 2015

SYLLABUS

CHEM1440D: General Chemistry Lab,		1 credit hour
Department of	Life & Health Sciences	Division of
		Liberal Arts and Life Sciences
Instructor Name:	Dr. Sudha Chellamma	
Office Location:	Founder's Hall 305	
Office Phone:	972-338-1000	
Email Address:	Sudha.Chellamma@untdallas.edu	
Office Hours:	Monday: 2-5 pm and by appointment	
Classroom Location:	DAL2 247 (Lab); DAL2 304 (Pre-lab Lecture)	
Class Meeting Days & Times:	Laboratory: T, 1:00-3:50 PM Pre-lab Lecture: T: 11: 30am-12:20 PM	
Course Catalog Description:	Quantitative, gravimetric and volumetric analysis and coordination compounds	
Prerequisites:	MATH1430 D or equivalent	
Co-requisites:	CHEM1420D is strongly suggested to be taken concurrently.	
Required Text:	None	
Recommended Text and References:	Acree, Jr. <i>Modern General Chemistry Laboratory: Incorporating Computer - Oriented Data Acquisition and Evaluation Approach into the Student Laboratory Experience</i> . Eagle Images (2007).	
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 Objectives:	
	<p>UNT'S Core Curriculum Student Learning Outcomes</p> <p>As a result of their experience with the core curriculum, UNT Dallas graduates will:</p> <ul style="list-style-type: none"> • explore English, the arts and humanities, math, the natural sciences, and social and behavioral sciences. • be able to locate, evaluate and organize information including the use of information technologies. • think critically and creatively, learning to apply different systems of analysis. • develop problem solving skills that incorporate multiple viewpoints and differing contexts in their analysis. • cultivate intellectual curiosity and self-responsibility, building a foundation for life-long learning. • engage with a variety of others in thoughtful and well crafted communication. • 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. <p>These learning outcomes will be assessed through specific assignments and exam questions given during the semester. These include:</p> <ul style="list-style-type: none"> • A special topics essay on a current issue related to chemistry • A presentation based on the essay above; audience participation will also be evaluated • Exam questions on Chemical Equilibrium • Determination of identities of unknown carboxylic acids by titrimetric determination <p>CHEM 1440 Learning Objectives/Outcomes: At the end of this course, the student will</p>
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.

Course Outline

Tentative laboratory experiment schedule is given below. Any changes to this schedule will be announced in class and on Blackboard.

Topics/Experiment	Date
Syllabus/Safety	1/20
Experiment 13: Chemical Kinetics I	1/27
Experiment 14: Acetic acid concentration in vinegar	2/3
Experiment 15: pH- titration	2/10
Experiment 17: pKa determination	2/17
Experiment 18: Acids & bases in common household products	2/24
Experiment 19: Beer's Law	3/3
Experiment 20: Chemical Kinetics II	3/10
Experiment 21: Equilibrium constant for complex formation	3/24
Experiment 22: Molar solubility and solubility product	3/31
Experiment 23: Redox titration	4/7
Experiment 25: Electrochemistry	4/14
Check out lab, make sure all lab reports are turned in	4/21

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: Data sheets where students record data and observations, perform necessary calculations and answer any discussion questions.

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 the prelab lecture.

Grading Matrix:

Instrument	Value (points or percentages)	Total
Lab Reports	11 lab reports; 1 drop	85%
Lab Quizzes	4-8 lab quizzes; 1 drop	15%
Total:		100%

Letter Grade Determination: Final grade percentages will be rounded to the nearest whole number and letter grades assigned as below

- A = 90% or higher
- B = 80 – 89 %
- C = 70 – 79 %
- D = 60 – 69 %
- F = <60%

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, Founder's Hall.

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.

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.

Lab Reports are due the week after the procedures and data collection for an experiment are complete.

Late lab reports will have points deducted as follows:

- 1-7 days: 1%/day
- >1 week: 10%/week

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/untDallas/policies/Chapter%2007%20Student%20Affairs,%20Education,%20and%20Funding/7.002%20Code%20of%20Academic_Integrity.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.

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 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 class notes, if they are absent.

****Due to safety, preparation, and scheduling issues, there are no planned make-up labs. If you miss one lab (or one lab quiz), it will count as a drop. If you have additional excusable absences (due to 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. Otherwise, a missed laboratory will result in a zero for that experiment.****

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.

Communication

I will use Blackboard to post power points, homework assignments, answer keys and supplemental information. I also email the class occasionally, so please check your university email and blackboard regularly. Make sure to communicate using university email and I will respond within 24 h. on weekdays and by the next business day on weekends.

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 regular up April 7th 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.

Instructor reserves the right to amend this Syllabus as necessary.