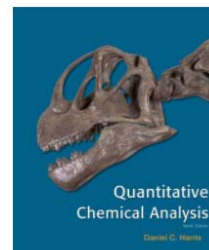


# QUANTITATIVE CHEMICAL ANALYSIS

Syllabus for CHEM 3310, Fall 2021  
10:30 AM-11:50 AM, TR, in Old Main 205

**Instructor:** XiuJun James Li, Ph.D., Associate Professor

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Phone: 747-8967 Office: CCSB 2.0112  
Office hours: TBA



## Teaching Assistant:

- Hamed Tavakoli, E-mail: [htavakoli@miners.utep.edu](mailto:htavakoli@miners.utep.edu)
- Kazi Saima Banu, E-mail: [kbanu@miners.utep.edu](mailto:kbanu@miners.utep.edu)

**Textbook:** Quantitative Chemical Analysis, by Daniel Harris, 9<sup>th</sup> Edition

## Online Teaching (some portions):

1. **Synchronous Teaching: Zoom:** <https://utep-edu.zoom.us/j/83356200951?pwd=aEFEUk9pODN2VGZsVlUwenYybGtxdz09>  
(Meeting ID: 833 5620 0951; Passcode: XX77NbZv)
2. **Asynchronous Teaching:** Pre-recorded video.

**Online homework:** Required.

**Achieve:**

Course ID: tphz32

When registering, please enter your **legal name**, your **UTEP email**, and **Student ID**.

Course Name	Course ID	Meeting Times	Term	Institution
<b>New Course</b> Analytical Chemistry CHEM3310	tphz32	TTh 10:30 AM-11:55 AM	Fall 2021	The University of Texas at El Paso

We may also use **App REEF** Polling for in-class activities.  
Search "CHEM3310"

**Co-requisite:** Laboratory class CHEM 3110

**Pre-requisite:** General Chemistry and others listed in the course description.

Suggested Course following this course: Instrumental Analysis CHEM4211

## Brief Course Description:

The fundamental principles of analytical sciences are introduced in this course. The concepts of sampling, experimental uncertainty, statistical data analysis and calibration will be covered in the lecture and put into practice in laboratory sessions. The principles of acid-base equilibria in solution are fully developed throughout the course. Complex reaction equilibria involving metal ions and multidentate ligands are treated from the perspective of individual species measurement. Titrimetric and electroanalytical techniques (e.g. potentiometry) for solution species are discussed. We will cover most of the first 14 Chapters. Active learning will be applied and promoted in this course.

I hope you will keep the textbook after the end of this course and that you will continue to use it as a reference.

### **Evaluations:**

The course grade given to each student will be determined on the following basis.

Homework	20 %
In-class work, quizzes and attendance	10 %
Unit Exam 1*	16 %
Unit Exam 2*	23 %
<u>Exam 3 (final, comprehensive)</u>	<u>31 %</u>
Final Grade*:	100 %

### **Grades:**

A: 89% - 100%, B: 79% - 89%, C: 70%-79%, D: 60%-69%, F: <60%

\*: There are two unit tests. The one that you get the lowest score among these two tests (denoted as Unit Exam 1 herein) will take a less percentage, i.e., 16%, while the other unit exam will take a higher percentage, i.e., 23%. This is to increase your overall score.

Make-up exams including quizzes etc will **NOT** be given. Please consider carefully the repercussions of making other commitments that coincide with exam days and class time.

### **Checklist for a good grade in this course:**

1. Read the assigned textbook topic before each class.
2. Come to class and take your own good notes and study them for the exams.
3. Work all of the homework problems and seek clarification if you don't understand.
5. Work out all mistakes on exams right after the exam.

Bring your calculator to every class. Please turn off all communication electronics while the class is in session.

### **Academic honesty:**

Materials (written or otherwise) submitted to fulfill academic requirements must represent a student's own efforts. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Violations will be taken seriously and will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

### **Students with Disabilities**

If you have or believe you have a disability, you may wish to self-identify. You can do so by providing documentation to the Office of disabled Student Services located in Union E Room 203. Students who have been designated as disabled must reactivate their standing with the Office of Disabled Student Services on a yearly basis. Failure to report to this office will place a student on the inactive list and nullify benefits received. If you have a condition which may affect your ability to exit safely from the premises in an emergency or which may cause an emergency during class, you are encouraged to discuss this in confidence with the instructor and/or the director of Disabled Student Services. You may call 747-5148 for general information about the Americans with Disabilities Act (ADA).

All grades of Incomplete must be accompanied by an Incomplete Contract that has been signed by the instructor of record, student, departmental chair, and the dean. Although UTEP will allow a maximum of one year to complete this contract, the College of Science requests it be limited to one month based upon completion data. A grade of Incomplete is only used in extraordinary circumstances confined to a limited event such as a missed exam, project, or lab. If the student has missed a significant amount of work (e.g. multiple assignments or tasks), a grade of Incomplete is not appropriate or warranted.

### **COVID-19 PRECAUTION STATEMENT**

We need to follow CDC, El Paso, and UTEP's regulations to ensure high safety such as **the indoor face mask mandate**.

Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to [covidaction@utep.edu](mailto:covidaction@utep.edu), so that the Dean of Students Office can provide you with support and help with communication with your professors. The Student Health Center is equipped to provide COVID-19 testing.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit [epstrong.org](http://epstrong.org).

*Syllabus is subject to change. Any change will be announced in class, or posted on the Blackboard site during the semester. You are solely responsible for getting the most updated information.*

**Tentative Schedule**

<b>Dates</b>	<b>Contents</b>	<b>Note</b>
<b>Sept 6</b>	<b>Labor Day. No Class.</b>	
<b>Oct 29</b>	<b>Fall Drop/Withdrawal Deadline</b>	
<b>Nov 25-26</b>	<b>Thanksgiving Holiday; No Class</b>	
<b>Dec 2</b>	<b>Final Exam</b>	