

# QUANTITATIVE CHEMICAL ANALYSIS

Syllabus for Chemistry 3310

Fall 2016

10:30 AM-11:50 AM, TR, in Classroom C205

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

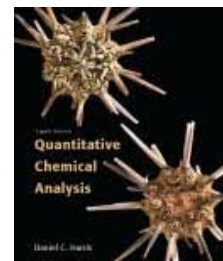
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**Textbook:** Quantitative Chemical Analysis, by Daniel Harris, 8<sup>th</sup> Edition

**Online homework:** Required. Sapling (<http://www2.saplinglearning.com/analytical-chemistry>) or some other webs designated by the instructor:

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

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

## **Brief Course Description: P**

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.

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

## **Evaluations:**

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

Homework	20 %
In-class work, quizzes and attendance	12 %
Exam 1	20 %
Exam 2	20 %
Exam 3	20 %
<u>Exam 4 (final, comprehensive)</u>	<u>28 %</u>
Final Grade*:	100 %

## **Grades:**

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

\* You have the option of dropping one exam grade from the first three exams to improve your average.

Final grades will be calculated with your 2 best exam grades from the first three exams plus the final exam, the in-class work, quizzes & attendance, and homework grades.

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

## **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.

*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.*