

# El Paso Community College

## Syllabus

### Part II

## Official Course Description

<b>SUBJECT AREA</b>	<u>Chemistry</u>
<b>COURSE RUBRIC AND NUMBER</b>	<u>CHEM 2401</u>
<b>COURSE TITLE</b>	<u>Analytical Chemistry I</u>
<b>COURSE CREDIT HOURS</b>	<u>4      3    :    3</u> Credits   Lec.   Lab

### I. Catalog Description

Studies the ionic, acid-base, and complex equilibria important in the separation and identification of ionic species in aqueous media. **Prerequisites: CHEM 1411 and CHEM 1412. (3:3). Lab fee.**

### II. Course Objectives

Upon satisfactory completion of this course, the student will be able to:

- A. Understand the strategies of Qualitative Analysis. Distinguish and interpret the nature of chemical reactions. Solve problems involving: Kinetics, Chemical Equilibrium, and Thermodynamics.
- B. Interpret the nature of chemical compounds. Distinguish the physical properties of compounds. Understand the classification of chemical compounds. Explain the Ionization of Water, Acids and Bases. Engage in the solutions phenomena. Solve problems related with concentration units, solubility, and equilibrium processes involving sparingly. Define soluble ionic substances, and colloidal dispersion.
- C. Predict the formation of complex compounds. Understand the Lewis Theory of Chemical Combinations.

### III. Evaluation

- A. Pre-assessment  
Instructors should check each student's prerequisites the first week of class; those who do not qualify should be sent back to Admissions.
- B. Challenge Exam  
Students who wish to challenge the course should contact the Testing Center and the Division Dean. Challenges must be accomplished before the census cut-off date. Students who previously have received a W or a letter grade for the course are not eligible to challenge the course.
- C. Post-assessment
  1. The instructor will maintain a continuous record of each student's progress on an institutionally approved grade sheet or computerized substitute. All instructors must keep records in such a way that information would be clear to a second party having to check grade computation in special cases. An explanatory legend should be provided on the grade sheet.
  2. The evaluation of the exams should be in an objective and reproducible manner. In addition to reading assignments, the instructor may require quizzes and exercises on the subject material.

It is essential that students commit themselves to the assignments throughout the semester.

Number and Types of Examinations: The course will include a minimum of four major written examinations and one final examination.

Reading assignments of textbook or library materials may vary in length, depending on the nature of the subject, and may be part of the examinations.

The following approaches may be involved; however, instructors should stress the possible overlap of these strategies.

1. Process analysis
2. Critical thinking
3. Comparison/contrast
4. Classification
5. Definition
6. Description
7. Causal analysis
8. Analogy
9. Problem/solution

D. Final Examination

A final examination is required in all Chemistry 2401 classes. The exam should consist of all material covered in class during the semester in the scheduled two-hour final examination period. The final exam should reflect a satisfactory mastery of the course objectives including the use of appropriate strategies of problem solving.

E. Grading Percentages

Grade percentages for determining the course grade may be devised by the individual instructor, but the grade for the final exam should be averaged as 200% of the regular exam grades.

F. Remediation

There will be no remediation. Since the lowest exam grade is dropped, there are no make-up examinations.

G. Grading Scale:

A = 90 - 100

B = 80 - 89

C = 70 - 79

D = 60 - 69

F = below 60

I = Incomplete

W = Withdrew or withdrawn

#### IV. Disability Statement (American with/Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024)

#### V. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.