

PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE

Transfer course A.A. degree applicable course
(check all that apply)

COURSE NUMBER AND TITLE: CHEM 115L General Chemistry Laboratory

UNIT VALUE: 2

MINIMUM NUMBER OF SEMESTER HOURS: 96

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS

PREREQUISITE: CHEM 110 and 110L; concurrent enrollment in, or completion of, CHEM 115.

COREQUISITE:

RECOMMENDED PREPARATION: None

SCOPE OF COURSE:

Qualitative and quantitative investigations designed to accompany CHEM 115.

SPECIFIC COURSE OBJECTIVES:

The successful student will be able to:

1. Analyze data from experiments designed to illustrate principles presented in CHEM 115.
2. Identify specific cations in a solution of cations by following the procedure given in the laboratory manual.
3. Explain procedures and phenomena obtained from experiments.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

Experiments may cover all or some of the following topics:

1. Thermochemistry
2. Kinetics
3. Chemical Equilibrium (including complex ion equilibria)
4. Acid-Base Equilibria and Titrations
5. Solubility Products
6. Electrochemistry
7. Qualitative Analysis

REQUIRED READING:

Postma, James M., Julian L. Roberts, Jr., and J. Leland Hollenberg. Chemistry in the Laboratory. 5th edition. New York: W.H. Freeman and Company, 2000.

SUGGESTED READING: None

REQUIRED WRITING:

Written answers will be requested for:

1. Questions in lab reports--about one paragraph each.
2. Questions in lab exams--about one paragraph each.

Some instructors request lab reports that are not formatted by the lab manual and must be written entirely by each student. Their reports are usually several pages in length. Calculations must be performed so that the method used to arrive at final answers is clearly shown. Required writing will consist of 5 or more pages.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short-term classes.

Preparation for laboratory experiments (about one hour per week) and writing complete experiment reports (about 2-5 hours per week) in addition to 6 hours of work in lab.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

- lecture
 laboratory
 lecture-laboratory combination
 directed study

This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes No

If yes, check all that apply.

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
 Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
 Two-Way Video Conferencing (Two-way interactive video and audio)
 One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
 Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

GRADING POLICY AND STANDARDS (include methods of determining whether the stated objectives have been met by students):

Reports	=	40%	Based on completeness of reports, clarity of calculations, correct procedure or calculation and correct answers to questions.
Unknowns	=	15%	Based on correct identification of unknowns in experiments.
Quizzes and written assignments	=	5%	
Lab Exams	=	40%	

Each instructor will modify this outline to fit individual teaching strategies.

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes ___ No X Number of times course may be taken for credit: 1.

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable:

CONTACT PERSON: Kristeen Fukunaga

SIGNATURES:

SIGNATURES ON FILE
