ANTELOPE VALLEY COLLEGE

Academic Affairs
Course Outline of Record

Academic Affairs Only

- ☐ New Course
  - ☐ Effective Date (for articulation)
- ☐ COR Revision
- ☐ Pre Req/Advisories
- ☒ Other Changes 2/12/2009
- ☒ SLOs 4/18/2008

COURSE SUBJECT & NUMBER: CHEM 212

COURSE NAME: Organic Chemistry Support Laboratory

COURSE UNITS: 0.5 **COURSE HOURS:** 2.0 hours weekly

COURSE REQUISITES: ***(Follow format of similar courses found in the college catalog.)***
Corequisite: Concurrent enrollment in CHEM 210.

COURSE DESCRIPTION: ***(Write a short paragraph providing an overview of topics covered. Be sure to identify target audience--transfer, major, GE, degree/certificate, etc. If repeatable, state the number of times at end of description as (R#)***.
This optional course provides access to the laboratory facilities used in the CHEM 210 Organic Chemistry course. This course will provide opportunities to complete course assignments and master learning objectives. Students in CHEM 210 are strongly encouraged to enroll in this course. Note: No grade will be given for this course; student will receive "pass" or "no pass" only.

COURSE OBJECTIVES: ***(Title 5 requires that courses show evidence of critical thinking skills. Use Bloom's taxonomy to formulate concise, performance-based measurable objectives common to all students. Objectives must be closely aligned with course content, assignments, and methods of evaluation)***

Upon completion of course, the successful student will be able to

Successfully complete CHEM 210 (Organic Chemistry) by:
1. using the organic chemistry classroom to complete CHEM 210 assignments.
2. working with an instructor to practice laboratory skills.
3. improving the content of their laboratory notebooks.
4. working with an instructor to improve their skills with scientific instrumentation.

Course Subject & Number: CHEM 212
Course Name: Organic Chemistry Support Laboratory

COURSE CONTENT: ***(Enter course content in terms of specific topics or a specific body of knowledge that each instructor must cover. Put topics in outline form with major and minor headings. Each instructor must cover all material listed below.)***

Proper use of experimental methods and assemblies.

a. Crystallization
b. Melting Points
c. Extraction
d. Distillation
e. Thin Layer Chromatography
f. Gas Chromatography
g. Infrared Spectroscopy

Course Subject & Number: CHEM 212
Course Name: Organic Chemistry Support Laboratory

TYPICAL HOMEWORK ASSIGNMENTS: (Do not include in-class work, quizzes, or tests)
This information is necessary for all credit courses. Assignments should be closely related to course objectives, content, and methods of evaluation. (See sample of a "Model Outline" in the AP&P Standards & Practices Handbook.) Include a range of assignments (minimum of three) from which faculty may choose when designing their syllabus.

1. ***Describe nature and frequency of typical reading assignments if applicable; note if any are required:***
As required by CHEM 210.

2. ***Describe nature and frequency of typical writing assignments if applicable; note if any are required:***
As required by CHEM 210.

3. ***Describe nature and frequency of typical computational assignments if applicable; note if any are required:***
As required by CHEM 210.

4. ***Describe other types of homework assignments that students may be asked to complete (oral presentations; special projects; visual/performing arts; etc); note if any are required:***
As required by CHEM 210.

For categories 1-4 above, list the estimated hours per week it would take a student to complete assignments. *Title 5 (section 55002)* requires that *each unit must be shown to require three hours of work per week by the student either in or out of class.* Homework formula: 3 hours of class work *times* each unit of credit *minus* classroom hours *equals* required homework hours.

Reading Assignments: None- all work is completed in the laboratory setting ***Writing Assignments***:

Computational Assignments: ***Other Assignments***:

Course Subject & Number: CHEM 212
Course Name: Organic Chemistry Support Laboratory

METHODS OF INSTRUCTION: ***(Methods must be consistent with content and appropriate to objectives; state in terms of what instructor will be doing in order to present course content to students: for example, lecture, demonstration, present audio/visual materials; facilitate group work, etc. Do not list specific instructional equipment.)***

Supervision of hands-on experimental work. Providing supplemental activities to the class, small group, or individual as needed.

METHODS OF EVALUATION: ***(These must be clearly related to course objectives and reflect course content and assignments in order to comply with Title 5 requirements. Describe what instructor will be looking for when evaluating various assignments and tests in order to determine whether students have met course objectives. Grades must be based on demonstrated proficiency in subject matter and determined, where appropriate, by essays, objective and essay tests, research papers or projects, problem solving exercises, or skills' demonstrations.)***

Pass/No Pass will be determined based on successful completion of CHEM 210. Laboratory notebooks will be evaluated for complete content, instrumental skills and laboratory skills.

Suggested Texts or Other Instructional Materials
(List several when possible; include title, author, publisher, date, and latest edition. If older than five years, provide brief rationale.)
Macroscale and Microscale Organic Experiments, Williamson, Houghton Mifflin Co., 2007, 5th Ed.
Organic Chemistry, McMurry, Thomson, 2008, 7th Ed.