



ANTELOPE VALLEY COLLEGE
Academic Affairs
Course Outline of Record

Academic Affairs Only

<input type="checkbox"/>	New Course
<input type="checkbox"/>	Effective Date (for articulation)
<input checked="" type="checkbox"/>	COR Revision 10/8/2009
<input type="checkbox"/>	Pre Req/Advisories
<input type="checkbox"/>	Other Changes
<input checked="" type="checkbox"/>	SLOs 2/21/200

COURSE SUBJECT & NUMBER: LAC 099

COURSE NAME: Dosage Calculation

COURSE UNITS: 0.5 **COURSE HOURS:** 8 hours total

COURSE REQUISITES: *(Follow format of similar courses found in the college catalog.)*

Advisory: Eligibility for READ 099, MATH 070, and concurrent enrollment in VN 101 or NS 111, MOA 110

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 course is designed for students interested in nursing careers such as LVN, RN and Medical Assisting. It will focus on problem solving techniques for oral, parenteral and intravenous fluid calculations for all age groups, including pediatric dosages. Reviewing ratio and proportions, equivalencies for apothecary, household and metric system units of measure, the course will focus on dimensional analysis in application of solving dosage problems related to oral, injectable and intravenous medications. This course is offered for pass, 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

1. Identify abbreviations, terms and symbols commonly used in medication orders
2. Approximate equivalents in metric, apothecary and household systems of units of measure
3. Calculate dosages for oral medications for all ages, including pediatrics
4. Calculate dosages for parenteral and intravenous medications for all ages, including pediatrics

Course Subject & Number: LAC 099

Course Name: Dosage Calculations

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.)*

The course will cover:

- I. Review of Ratio and Proportions
- II. Review of Common Terms , Abbreviations and Symbols Related to Medication Administrations
- III. Equivalencies Between Metric, Apothecary and Household Systems of Units of Measure
- IV. Oral Medication Calculation
- V. Parenteral and Intravenous Fluids Calculations
- VI. Critical Thinking in Calculating Dosages and Administrating Medication

Course Subject & Number: LAC 099
Course Name: Dosage Calculation

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:

Students will read and comprehend for each class session dosage calculation word problems related to nursing tasks.

2. Describe nature and frequency of typical writing assignments if applicable; note if any are required:

N/A

3. Describe nature and frequency of typical computational assignments if applicable; note if any are required:

Students will solve for each class session math problems related to the topics covered through dosage calculation lecture.

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:

Students will use the computer tutorial Dimensional Analysis for Meds as well as other software available in the Learning Center Math Center and turn in the folder with the solved exercises.

*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: 1

Writing Assignments:

Computational Assignments: 2

Other Assignments: 1

Course Subject & Number: LAC 099
Course Name: Dosage Calculation

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.)*

Lecture combined with collaborative learning in which groups of students will solve word problems related to dosage calculation.

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.)*

Completion of homework assignment, quizzes, midterm and final test related to word problems used to dosage calculations for oral, parenteral medications and infusions. Quizzes plus midterm will be problem-solving and computational exercises from the current software in the Learning Center correlated to all objectives..

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.)

Handouts, practice exercises and notes provided by the instructor.