



ANTELOPE VALLEY COLLEGE

**Academic Affairs Office
Course Outline of Record**

COURSE SUBJECT & NUMBER: RCP 104
COURSE NAME: Respiratory Care Pharmacology
COURSE UNITS: 3
COURSE HOURS: 3 hours lecture per week

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

Prerequisites: Completion of BIOL 202, ENGL 101, RCP 101, RCP 101CL and RCP 102 with a grade of "C" or better

Admission to the Respiratory Care/Therapy program

Corequisites: RCP 103 and RCP 103CL

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).*

This course introduces the student to fundamental pharmacological concepts and applied pharmacology. Emphasis is placed on drug action and interaction as well as the practical aspects of routes of administration. National patient safety standards applying to pharmacology are discussed. (AVC)

COURSE OBJECTIVES: *(Should be stated as performance-based, measurable expected student outcomes. Use Bloom's taxonomy to formulate clear and concise objectives. These objectives are common to all students; they must be clearly related to course content, assignments, and methods of evaluation.)*

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

1. Identify medication by generic and trade names.
2. Calculate medication dosages and concentrations.
3. *Choose the optimum route of administration for medications commonly used in the treatment of respiratory care patients.
4. Recognize drug actions and interactions of medications commonly used in the treatment of respiratory care patients.

* Denotes SCAN competency.

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. Title 5 requires that each instructor covers all material listed here.)*

- I. General principles of pharmacology
 - a. Five rights
 - b. Legal principles
 - c. Ethical principles
 - d. National Patient Safety Standards

- II. Dosage calculations
 - a. Oral drugs
 - b. Parenteral drugs
 - c. Concentrations
 - d. Special considerations for pediatrics and geriatrics

- III. Commonly used respiratory drugs: actions, side effects, interactions, and considerations
 - a. Autonomic nervous system drugs
 - b. Sympathomimetic agents
 - c. Parasympatholytic drugs
 - d. Methylxanthines
 - e. Mediator agonists
 - f. Corticosteroids
 - g. Mucokinetic drugs
 - h. Surfactants
 - i. Antimicrobial therapy
 - j. Neuromuscular blocking agents

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TYPICAL READING, WRITING, AND COMPUTATIONAL ASSIGNMENTS

This material is necessary for all credit courses. Assignments should be clearly 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:
30 pages of reading in the text and ancillary readings weekly

2. Describe nature and frequency of typical writing assignments if applicable; note if any are required:
5-8 page research paper with professional references related to drug therapy for respiratory care situations

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

4. If course is degree applicable/transfer, describe those critical thinking skills that are required; be sure that they reflect course objective. (Title 5 requirements can be found in the AP&P Standards and Practices book.)

problem solving determining relationships between anatomy and physiology and cardiopulmonary medications

5. Describe other types of assignments that students may be asked to complete:

6. For each of the above categories, describe the estimated time per week it would take a student to complete typical out-of-class assignments. Title 5 uses the Carnegie formula for establishing units using a 2:1 ratio as follows: 1 hr. lecture = 2 hrs. homework; 2 hrs. lecture = 4 hrs. homework; etc. For example: reading text—2 hours; writing reports—3 hours

Reading: 4 hours weekly in text

Writing: 2 hours weekly to write research paper

Computational: 1 hour weekly

Other:

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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.)*

Lecture, discussion, multimedia

METHODS OF EVALUATION: *(These must be clearly related to course content, assignments, and objectives, in order to comply with Title 5 requirements. Describe what instructor will be looking for when evaluating 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, problem solving exercises, or skills' demonstrations.)*

Multiple choice and short answer exams to determine drug identification, actions, interactions, routes. Math problems to determine correct calculations of dosages and concentrations. Research paper to determine competency in recognition of drug effects, side effects, actions and interactions.

Suggested Texts or other Instructional Materials *(include title, author, publisher, date, and edition):*
Rau, J., Respiratory Care Pharmacology, 6th Ed. Mosby, 2002.

Effective Date: _____
(date course can first be offered to be filled in by Office of Academic Affairs)