



ANTELOPEVALLEY COLLEGE

Academic Affairs
Course Outline of Record

Academic Affairs Only

- New Course
- COR Revision
- COR Update
- Pre Req/Advisories
- X Other Changes 4/12/2007
- Effective Date
- X SLO 2/8/2008

COURSE SUBJECT & NUMBER: RCP 105 RCP 105CL

COURSE NAME: Fundamentals of Clinical Respiratory Care

COURSE UNITS: 5 **COURSE HOURS:** 2 hrs lecture and 9 hours clinic per week

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

Prerequisites: Completion of RCP 103, RCP 103CL, and 104 with a grade of "C" or better. Admission to the Respiratory Care/Therapy program.

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 provides an introduction to mechanical ventilation concepts and selected therapeutic modalities. (AVC)

COURSE OBJECTIVES: *(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. *Integrate knowledge of pathophysiology, patient condition and therapeutic modalities into patient care.
2. Explain the rationale for specific therapeutic modalities administered to patients.
3. *Practice assessment and treatments skills with minimal supervision from an experienced respiratory therapy clinician in non intensive care situations.
3. *Demonstrate skills in mechanical ventilation.

* Denotes SCANS competencies.

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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 below.)* Note: This is a two-column page.

- I. Patients at risk for mechanical ventilation
 - a. Trauma patients
 - b. Respiratory failure patients
 - c. Surgical patients

- II. History of mechanical ventilation
 - a. Early attempts at mechanical ventilation
 - b. Positive pressure ventilation
 - c. Negative pressure ventilation

- III. Preparation for intubation
 - a. Preparation for tracheotomy
 - b. Preparation for endotracheal intubation

- IV. Guide to ventilator selection and settings
 - a. Positive versus negative pressure ventilation
 - b. Settings

- V. Introduction to modes of mechanical ventilation
 - a. Controlled ventilation
 - b. Assist-control ventilation
 - c. Synchronized intermittent mandatory ventilation

- VI. Managing the ventilator
 - a. Hand ventilation
 - b. Airway management

- VII. Effects of mechanical ventilation
 - a. Cardiovascular effects
 - b. Pulmonary effects
 - c. Sodium and water balance
 - d. Gastrointestinal effects
 - e. Musculoskeletal effects
 - f. Psychologic effects
 - g. Weaning and extubation

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TYPICAL HOMEWORK ASSIGNMENTS: READING, WRITING, COMPUTATIONAL, OTHER

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:

30-50 pages of reading from text and in preparation for presentation

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

Patient care worksheets weekly and one 3-5 page paper on a case study of a patient with respiratory disease, including professional medical references

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

Dosage calculations for resuscitation drugs and fluids weekly

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

Synthesis of classroom content into clinical practice, including problem solving in unique specific situations in patient care.

5. Describe those critical thinking skills that are derived from assignments listed above; be sure that they reflect course objectives.

Patient care worksheets for assigned clinical patients will demonstrate the students' ability to integrate knowledge of pathophysiology, patient condition and therapeutic modalities into patient care.

6. For categories 1-4, describe the estimated time per week it would take a student to complete homework 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 textbook—2 hours; writing reports—3 hours.

Reading: 4 hours per week from texts and other assigned reading

Writing: 2 hours weekly, patient care worksheets and paper

Computational: ½ hr weekly to calculate resuscitation drugs and fluids

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, demonstration, multimedia, supervised clinical practice

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 questions to determine integration of knowledge of pathophysiology and treatment modalities and knowledge of principles of mechanical ventilation. Instructor evaluation of performance in clinical to determine competency in respiratory care procedures. Paper with professional medical references to have students integrate pathophysiology and treatment modalities.

Suggested Texts or other Instructional Materials (include title, author, publisher, date, and edition):

Beers, M. & Berkow, R. (Eds.), The Merck Manual of Diagnosis and Therapy, 17th Ed., Merck, Sharp, & Dohme, 1999.
Cario, J.M. & Pilbeam, S. Mosby's Respiratory Care Equipment, Mosby, 2004.
Cario, J.M. & Pilbeam, S. Mechanical Ventilation: Physiological and Clinical Applications, Mosby, 2006.
Oakes, D. Clinical Practitioner's Pocket Guide to Respiratory Care, 5th Ed., Health Educator Publishing Co., 2000.
Scanlan, C., et al., Egan's Fundamentals of Respiratory Care, 8th Ed., 2003.