



ANTELOPE VALLEY COLLEGE

**Academic Affairs Office
Course Outline of Record**

COURSE SUBJECT & NUMBER: RCP 201

COURSE NAME: Neonatal and Pediatric Respiratory Care

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 RCP 105 and RCP 105CL with a grade of "C" or better. Admission to the Respiratory Care/Therapy program.

Corequisites: RCP 202, RCP 202CL, RCP 203 and RCP 203CL

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 respiratory care of the neonatal and pediatric patient. Emphasis is placed upon growth and development, pathophysiology, clinical assessment, treatment, resuscitation, and mechanical ventilatory support. (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. *Integrate knowledge of pathophysiology, patient condition and therapeutic modalities into care for neonates and pediatric patients.
2. Recognize factors that indicate a high risk pregnancy or delivery.
3. Recognize the common respiratory distress syndromes and the management for each.
4. Assess the neonatal and pediatric patient including abnormal vital signs and laboratory test results.
5. *Manage the patient who requires positive pressure mechanical ventilation.

* Denotes SCANS competencies.

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. Cardiopulmonary anatomy and physiology of the fetus and neonate
 - a. A & P of the fetus
 - b. A & P of the newborn
 - c. A & P of the pediatric client
 - d. Recognition of high risk pregnancy

- II. Cardiopulmonary pathophysiology of the neonate and child
 - a. Common neonatal respiratory distress syndromes
 - b. Congenital defects associated with respiratory distress syndromes
 - c. Pediatric airway diseases

- III. Clinical assessment of the fetus, neonate and child
 - a. Complications of oxygen therapy
 - b. Complications of positive pressure ventilation
 - c. Clinical assessment of the neonate and child
 - d. Psychological and development considerations in clinical assessment of neonates and children

- III. Therapeutic procedures
 - a. Mechanical respiratory support
 - b. Equipment used in the neonatal and pediatric intensive care units
 - c. High-frequency ventilation
 - d. Extracorporeal membrane oxygenation

- IV. Delivery room procedures
 - a. Role of the respiratory care practitioner in the delivery room
 - b. Roles of other health team members in the delivery room

- V. Resuscitation of infants and children
 - a. Role of the respiratory care practitioner in the NICU and PICU
 - b. Resuscitation procedures

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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:
30-50 pages of reading from the textbooks per week

2. Describe nature and frequency of typical writing assignments if applicable; note if any are required:
5-8 page research paper related to topic of interest on mechanical ventilation using professional references

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

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.)

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

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 per week from texts and other assigned reading

Writing: 2 hrs weekly in preparation for research paper

Computational:

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, instructor-guided case studies

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 neonatal and pediatric resuscitation and mechanical ventilation. Research paper to determine integration of pathophysiology with pediatric respiratory care and mechanical ventilation.

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

- Barnhart, S.L. & Czervinske, M.P. Perinatal and Pediatric Respiratory Care, Delmar, 2002.
Cairo, J.M. & Pilbeam, S. Mosby's Respiratory Care Equipment, Mosby, 2004.
DesJardins, T. Cardiopulmonary Anatomy and Physiology, Delmar, 2002.
Oakes, D. Neonatal/Pediatric Respiratory Care: A Critical Care Pocket Guide., Health Educator Publishing Co., 2000.

Effective Date: _____

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