

BUTTE COLLEGE

COURSE OUTLINE

I. CATALOG DESCRIPTION

RT 142 - Neonatal and Pediatric Respiratory Care

3 Unit(s)

Prerequisite(s): RT 135

Co-requisite(s): RT 140, RT 145

Recommended Prep: NONE

Transfer Status: NT

51 hours Lecture

This course is 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. Graded only.

II. OBJECTIVES

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

- A. Identify factors which indicate a high risk pregnancy/delivery, be prepared to assist in neonatal resuscitation, and provide education to the parents as appropriate.
- B. Recognize the common neonatal respiratory disease syndromes and describe the appropriate respiratory management skills for each.
- C. Assess the neonatal/pediatric patient, applying normal and abnormal vital signs and laboratory test results to the clinical situation.
- D. Describe the key components of the management of a patient who requires positive pressure mechanical ventilation.

III. COURSE CONTENT

A. Unit Titles/Suggested Time Schedule

Lecture	
<u>Topics</u>	<u>Hours</u>
1. Cardiopulmonary Anatomy and Physiology of the Fetus and Newborn	6.00
2. Prenatal Assessment	6.00
3. Cardiopulmonary Assessment of the Neonate and Child	6.00
4. Cardiopulmonary Pathophysiology of the Neonate and Child	12.00
5. Cardiopulmonary Monitoring of the Neonate and Child	6.00
6. Oxygen Therapy/ Bronchial Hygiene Therapy/ Airway Management/ Resuscitation Principles of Neonate and Child	6.00
7. Mechanical Respiratory Support of the Newborn	9.00
Total Hours	51.00

IV. METHODS OF INSTRUCTION

- A. Lecture
- B. Group Discussions
- C. Class Activities
- D. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- E. Demonstrations

F. Reading Assignments

V. **METHODS OF EVALUATION**

- A. Quizzes
- B. Homework
- C. Class participation
- D. Final Examination
- E. Written Examinations
- F. Class Discussion

VI. **EXAMPLES OF ASSIGNMENTS**

A. Reading Assignments

1. Read the assigned readings on Fetal Development and be prepared to participate in a classroom discussion on the topic.
2. Read the assigned readings on Prenatal Assessment and be prepared to participate in a classroom discussion on this topic.

B. Writing Assignments

1. Complete all the items listed on the Learning Objectives, Cardiopulmonary Anatomy and Physiology of the Fetus and Newborn.
2. Complete all the items listed on the Learning Objectives, Prenatal Assessment.

C. Out-of-Class Assignments

1. Complete the Review Questions in the Neonatal Resuscitation Textbook for Chapters 1 and 2.
2. Complete the Review Questions in the Neonatal Resuscitation Textbook for Chapters 3 and 4.

VII. **RECOMMENDED MATERIALS OF INSTRUCTION**

Textbooks:

- A. Barnhart SL, Czervinske MP. Perinatal and Pediatric Respiratory Care. 3rd Edition. Saunders Elsevier, 2010.
- B. Des Jardins, Terry. Cardiopulmonary Anatomy and Physiology. 5th Edition. Delmar, 2008.
- C. Oakes D. Neonatal/Pediatric Respiratory Care: A Critical Care Pocket Guide. 6th Edition. Health Educators Publishers, 2009.
- D. Cairo, J.M., Pilbeam, S.. Mosby's Respiratory Care Equipment. 8th Edition. Mosby, 2010.
- E. Bloom, Ronald S.. Neonatal Resuscitation Textbook. 6th Edition. American Academy of Pediatrics , 2011.

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