



I. GENERAL COURSE INFORMATION

Subject and Number: Respiratory Care 282
Descriptive Title: Fundamentals of Perinatal and Pediatric Respiratory Care
Course Disciplines: Respiratory Technologies
Division: Health Sciences and Athletics

Catalog Description:

This course will introduce the student to the basic anatomy and physiology of the fetus, neonate and pediatric patient. The student will learn the fundamental therapeutic procedures, equipment and data used to provide pediatric and perinatal respiratory care. Neonatal and pediatric basic and advanced life support will also be taught in the classroom, lab and clinical setting.

Conditions of Enrollment:

Enrollment Limitation: Students must be admitted to the El Camino College Respiratory Care Program or have graduated from an accredited respiratory care program.

Course Length:	X Full Term	Other (Specify number of weeks):
Hours Lecture:	2.00 hours per week	TBA
Hours Laboratory:	6.00 hours per week	X TBA
Course Units:	4.00	

Grading Method: Letter
Credit Status: Associate Degree Credit

Transfer CSU: Yes **Effective Date:**

Transfer UC: No

General Education:

El Camino College:

CSU GE:

IGETC:

II. OUTCOMES AND OBJECTIVES

- A. COURSE STUDENT LEARNING OUTCOMES (The course student learning outcomes are listed below, along with a representative assessment method for each. Student learning outcomes are not subject to review, revision or approval by the College Curriculum Committee)**

SLO #1 Appropriate and Competent FIO2 Management

Given an in-class patient care scenario during an oral examination based on assigned reading, demonstrate appropriate and competent FIO2 management using guidelines set in clinical competencies section of the Data Arc system for clinical practice.

SLO #2 Explain Peds/Neo RC Differences

During classes & labs, students will demonstrate and explain appropriate respiratory care competencies such as FIO2 monitoring and managing patients receiving prolonged artificial ventilation, pulmonary rehabilitation, life support procedures, bronchial hygiene and oxygen therapy.

SLO #3 Comprehensive Final Exam on RC Perinatal & Peds Care

Students who stay in the course till the end of semester will take a comprehensive final multiple choice examination and 80% will obtain a grade of 70% or better.

- B. Course Student Learning Objectives (The major learning objective for students enrolled in this course are listed below)**

1. Identify anatomical and physiological differences between the fetus, neonate, pediatric and adult Respiratory Care patient.
2. Terminate, recommend changes and/or modify the respiratory care plan based on the patient's disease and response to: A. bronchial hygiene B. artificial airway C. deep breathing techniques D. artificial ventilation & weaning E. emergency resuscitation procedures
3. Identify signs and symptoms of respiratory conditions and diseases found in the neonate, fetus and pediatric respiratory patient.
4. Conduct therapeutic procedures on perinatal and pediatric critically ill patients to achieve: A. adequate arterial and tissue oxygenation B. maintenance of a patent airway C. removal of bronchopulmonary secretions D. adequate spontaneous and artificial ventilation
5. Protect patient from nosocomial infections by adherence to infection control policies and procedures.

- III. OUTLINE OF SUBJECT MATTER (Topics are detailed enough to enable a qualified instructor to determine the major areas that should be covered as well as ensure consistency from instructor to instructor and semester to semester.)**

Lecture or Lab	Approximate Hours	Topic Number	Major Topic
Lecture	6	I	Anatomy and physiology of the fetus, neonate and pediatric patient. A. Fetal Circulation B. Extra Uterine Changes at Birth
Lecture	6	II	Common respiratory conditions and complications of pregnancy and birth. A. Respiratory Distress syndrome B. Prolapse of the Cord

Lecture	4	III	Use of common maternal history and perinatal data to determine the degree and type of respiratory assistance needed. A. High Risk delivery B. Retinopathy of Prematurity
Lecture	4	IV	Equipment and therapeutic procedures used in perinatal and pediatric respiratory care. A. Infant ventilators B. Ultrasound
Lecture	6	V	Nosocomial infections in perinatal and pediatric respiratory care. A. Methicillin Resistant Staphlacoccus Aureus B. Pseudomonas Aeruginosa
Lecture	10	VI	Basic and advanced Neo/ Pediatric cardiopulmonary life support. A. Intubation B. Emergency Cardiac Medication Dosage and Delivery
Lab	108	VII	TO BE ARRANGED HOURS CLINICAL LAB Lab/clinic hours to be arranged in-patient care hospitals or settings where students will practice skills with live patients. Rotations will include the following units in the hospitals: 1.Neonatal Critical Care Unit 2.Pediatric Critical Care Unit 3.Non Critical Pediatric Floor Unit Performing, at minimum, the following procedures: 1. Pediatric routine vent check 2. Neonatal CPR 3. Pediatric aerosol treatment 4. Neonatal Transcutaneous monitoring There are specific competency procedures, skills and knowledge outlined in competency evaluation forms online thru DataArc, each student & instructor have access, if audited we can provide access to auditors or committee members.
Total Lecture Hours	36		
Total Laboratory Hours	108		
Total Hours	144		

IV. PRIMARY METHOD OF EVALUATION AND SAMPLE ASSIGNMENTS

A. PRIMARY METHOD OF EVALUATION:

Problem solving demonstrations (computational or non-computational)

B. TYPICAL ASSIGNMENT USING PRIMARY METHOD OF EVALUATION:

Demonstrate the proper technique for providing cardiopulmonary resuscitation to a 2 year old, non-intubated patient with a history of croup and in full cardiopulmonary arrest.

C. COLLEGE-LEVEL CRITICAL THINKING ASSIGNMENTS:

1. Given access to Respiratory Care patient maternal history and data, determine if the Apgar score and the L/S ratio indicate the need for respiratory support.
2. Demonstrate and explain how and why to perform respiratory care and stabilization during and after delivery of a newborn infant with an Apgar score of 3-to-5.

D. OTHER TYPICAL ASSESSMENT AND EVALUATION METHODS:

Performance exams

Objective Exams

Quizzes

Written homework

Laboratory reports

Field work

Class Performance

Homework Problems

Term or other papers

Multiple Choice

Matching Items

True/False

Other (specify):

Clinical rotations in neonatal and pediatric units performing patient care and answering oral questions indicating information gathering and problem-solving skills.

Clinical performance at the patient's bedside in our clinical affiliate hospitals and clinics.

Multiple true/false, Patient Management Problems, and branching logic computer-assisted clinical simulations.

V. INSTRUCTIONAL METHODS

Demonstration

Discussion

Field trips

Group Activities

Guest Speakers

Laboratory

Lecture

Multimedia presentations

Role Play

Simulation

Other (please specify)

Clinical rotations in neonatal and pediatric units performing patient care and answering oral questions indicating information gathering and problem-solving skills.

Note: In compliance with Board Policies 1600 and 3410, Title 5 California Code of Regulations, the Rehabilitation Act of 1973, and Sections 504 and 508 of the Americans with Disabilities Act, instruction delivery shall provide access, full inclusion, and effective communication for students with disabilities.

VI. WORK OUTSIDE OF CLASS

- Study
- Answer questions
- Skill practice
- Required reading
- Problem solving activities
- Written work
- Observation of or participation in an activity related to course content
- Other (specify)
- Group active learning assignments simulating clinical situations that require information collection and decision making in order to solve patient problem and determine course of therapy.

Estimated Independent Study Hours per Week: 4

VII. TEXTS AND MATERIALS

A. UP-TO-DATE REPRESENTATIVE TEXTBOOKS

Walsh et al.. Perinatal and Pediatric respiratory Care. 3rd ed. Saunders, 2010.
Discipline Standard

B. ALTERNATIVE TEXTBOOKS

C. REQUIRED SUPPLEMENTARY READINGS

D. OTHER REQUIRED MATERIALS

VIII. CONDITIONS OF ENROLLMENT

A. Requisites (Course and Non-Course Prerequisites and Corequisites)

Requisites	Category and Justification
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B. Requisite Skills

Requisite Skills

C. Recommended Preparations (Course and Non-Course)

Recommended Preparation	Category and Justification
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D. Recommended Skills

Recommended Skills

E. Enrollment Limitations

Enrollment Limitations and Category	Enrollment Limitations Impact
Students must be admitted to the El Camino College Respiratory Care Program or have graduated from an accredited respiratory care program.	Students begin the clinical phase (A.S. degree requirements) of the Respiratory Care program after being accepted into the program.

Course created by Louis M. Sinopoli on 07/01/1990

BOARD APPROVAL DATE:

LAST BOARD APPROVAL DATE: 05/18/2020

Last Reviewed and/or Revised by: Roy Mekar

Date: 2/2/2020

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