Course Acronym:	RC
Course Number:	282
Descriptive Title:	Fundamentals of Perinatal and Pediatric Respiratory Care
Division:	Health Sciences and Athletics
Department:	Respiratory Care
Course Disciplines:	Respiratory Technologies
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.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	Students must be admitted to the El Camino College Respiratory Care Program or have graduated from an accredited respiratory care program.
Hours Lecture (per week):	2
Hours Laboratory (per week):	6
Outside Study Hours:	4
Total Course Hours:	144
Course Units:	4
Grading Method:	Letter Grade only
Credit Status:	Credit, degree applicable
Transfer CSU:	Yes
Effective Date:	Pending
Transfer UC:	No
Effective Date:	
General Education: ECC	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	

Student Learning Outcomes:	**SLO #1 Appropriate and Competent FI02 Management** Given an in-class patient care scenario during an oral examination based on assigned reading, demonstrate appropriate and competent FI02 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.
Course Objectives:	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.
Major Topics:	**I. Anatomy and physiology of the fetus, neonate and pediatric patient (6 hours, lecture)** A. Fetal Circulation B. Extra Uterine Changes at Birth **II. Common respiratory conditions and complications of pregnancy and birth (6 hours, lecture)** A. Respiratory Distress syndrome B. Prolapse of the Cord **III. Use of common maternal history and perinatal data to determine the degree and type of respiratory assistance needed (4 hours, lecture)** A. High Risk delivery B. Retinopathy of Prematurity **IV. Equipment and therapeutic procedures used in perinatal and pediatric respiratory care (4 hours, lecture)** A. Infant ventilators B. Ultrasound **V. Nosocomial infections in perinatal and pediatric respiratory care (6 hours, lecture)** A. Methicillin Resistant Staphlacoccus Aureus B. Pseudomonas Aeruginosa **VI. Basic and advanced Neo/ Pediatric cardiopulmonary life support (10 hours, lecture)** A. Intubation B. Emergency Cardiac Medication Dosage and Delivery **VII. CLINICAL LAB TO BE ARRANGED HOURS (108 hours, 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
Primary Method of Evaluation:	2) Problem solving demonstrations (computational or non-computational)
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.
Critical Thinking Assignment 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.
Critical Thinking Assignment 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.
Other Evaluation Methods:	Class Performance, Fieldwork, Homework Problems, Laboratory Reports, Matching Items, Multiple Choice, Objective Exam, Performance Exams, Quizzes, Term or Other Papers, True/False, Written Homework
Instructional Methods:	Demonstration, Discussion, Field trips, Group Activities, Guest Speakers, Lab, Lecture, Multimedia presentations, Role play/simulation
If other:	Clinical rotations in neonatal and pediatric units performing patient care and answering oral questions indicating information gathering and problem-solving skills.
Work Outside of Class:	Answer questions, Observation of or participation in an activity related to course content (such as theatre event, museum, concert, debate, meeting), Problem solving activity, Required reading, Skill practice, Study, Written work (such as essay/composition/report/analysis/research)
If Other:	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.
Up-To-Date Representative Texts:	Walsh et al.. Neonatal and Pediatric Respiratory Care. 6th ed. Saunders, 2022.
Alternative Texts:	
Required Supplementary Readings:	

Other Required Materials:	
Requisite:	
Category:	
Requisite course(s): List both prerequisites and corequisites in this box.	
Requisite and Matching skill(s):Bold the requisite skill. List the corresponding course objective under each skill(s).	
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Enrollment Limitations and Category:	Students must be admitted to the El Camino College Respiratory Care Program or have graduated from an accredited respiratory care program.
Enrollment Limitations Impact:	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
Date:	08/12/2015
Original Board Approval Date:	07/01/1990
Last Reviewed and/or Revised by:	Roy Mekaru
Date:	03/22/2204
Last Board Approval Date:	06/17/2024
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