



### **Course Description**

#### **RET2714 | Perinatal and Pediatric Respiratory Care | 2.00 credits**

This course is designed to provide training in perinatal and pediatric respiratory care. Students will learn assessment and therapeutic techniques related to critical care. Corequisites: RET 2264, 2714L.

### **Course Competencies**

**Competency 1:** The student will describe the pediatric patient assessment by:

1. Analyzing information reviewed during pediatric patient assessment
2. Evaluating the level of distress by rapid assessment

**Competency 2:** The student will describe Newborn assessment and surfactant therapy by:

1. Describing the Apgar scoring system
2. Describing the sequence of events during fetal transition
3. Explaining the difference between preterm, term, and post term labor
4. Describing the Apgar scoring system
5. Listing the steps for stabilization of the newborn
6. Discussing the delivery, benefits, and adverse effects of surfactant replacement

**Competency 3:** The student will describe the definition, diagnosis, and treatment for meconium aspiration, pulmonary hypertension of the newborn, infant respiratory distress syndrome, and congenital Diaphragmatic Hernia by:

1. Describing care given to suspected meconium aspiration
2. Describing how to define, diagnose, and treat pulmonary hypertension of the newborn
3. Describing how to define, diagnose, and treat infant respiratory distress syndrome (IRDS)
4. Describing how to define, diagnose, and treat congenital diaphragmatic hernia

**Competency 4:** The student will describe the indications and applications of oxygen therapy by:

1. Describing how to assess indication for oxygen delivery
2. Describing how to assess indication for a cool aerosol face mask or face tent
3. Describing how to assess indication for oxygen hood
4. Describing how to assess indication for high flow nasal cannula

**Competency 5:** The student will describe advanced airway management of the neonate by:

1. Identifying indications and complications of intubation
2. Identifying the initial conventional ventilator setting
3. Explaining criteria for extubation
4. Defining high-frequency ventilation
5. Differentiating between conventional and frequency ventilation
6. Identifying initial settings for high-frequency ventilation
7. Identifying pneumothorax via transillumination
8. Identifying the need to obtain a capillary blood gas sample
9. Explaining common anatomical blood gas sampling sites and possible complications
10. Identifying indications, contraindications, and purpose of continuous positive airway pressure (CPAP)
11. Describing monitoring strategies used for CPAP success or failure
12. Identifying indications, contraindications, and purpose of invasive mechanical ventilation

**Competency 6:** The student will describe the assessment of congenital cardiac defects by:

1. Identifying fetal shunts
2. Describing how to define, diagnose, and treat patent ductus arteriosus
3. Describing how to define and treat the arterial septal defect
4. Describing how to define, diagnose, and treat ventricular septal defect

5. Describing how to define, diagnose, and treat tetralogy of Fallot
6. Describing how to define, diagnose, and treat the great arteries

**Learning Outcomes:**

- Communicate effectively using listening, speaking, reading, and writing skills
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information