

## **Respiratory Care Program (updated Aug. 13, 2012)**

RESP 050 (all semesters)

1. Students will be able to name the minimum requirements for entry into the Respiratory Care Program.
2. Students will be able to explain what RCP is and what the requirements are for a license to practice Respiratory Care in California.
3. The student will be able to recite all additional requirements that must be completed to receive a certificate of completion as a Registered Respiratory Therapist.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 051x4 (summer)

1. The student will be able to identify the rate for performing chest compressions for a victim of any age.
2. The student will be able to explain when to start cycles of compressions with breaths for an adult.
3. The student will be able to explain why it is important to give early defibrillation to an adult.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

Resp 109AX2 & Resp 109BX4 (fall/spring) Rey Bell

1. The student will consistently attend clinical rotation with a minimal absence of less than 2 days.
2. The student will complete a passing score of a "C" grade evaluation from the clinical rotation.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 209X2 (sum 09)

1. The student will consistently attend clinical rotations with a minimal absence of less than 2 days.
2. The student will complete a passing score of a "C" grade from each of the three clinical rotations. 1
3. The student will successfully demonstrate completion of 1 full workload (18 units).

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 130 ( fall) Rey Bell

1. The student will be able to explain in writing the difference between kinetic energy and potential energy.
2. The student will be able to explain and calculate problems using the different types of gas laws.
3. The student will explain in writing the comparison between compliance and elastance.
4. The student will be able to explain in writing between minute ventilation and alveolar ventilation.
5. The student will be able to explain how to interpret the acid-base balance in an arterial blood gas.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 131 (fall) Ken Bryson

1. The student will be able to explain in writing how to perform a minimum occluding volume.
2. The student will be able to explain in writing how to perform a minimal leak technique.
3. The student will calculate the duration of flow from a gas cylinder.
4. The student will explain in writing how to calibrate a polarographic oxygen analyzer.
5. The student will explain in writing how to calibrate electrical helium –type analyzer.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

Resp 132 (fall) Brad Franklin

By the end of this class the students will be able to identify:

1. What a RCP should keep in mind when reviewing a patient's history?
2. What is the best parameter to evaluate the adequacy of a patient's ventilation?
3. What is the general purpose for performing pulmonary function studies?

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 133 (fall) Rey Bell

1. The student will demonstrate his/her understanding of medical gas cylinders and delivery methods, completing the following steps under the supervision of a clinical instructor.
2. The student will demonstrate how to assess a patient in an acute care or alternate care site.
3. The student will demonstrate how to set up a nasal cannula to a patient and will determine the approximate FIO<sub>2</sub> delivered per liter of flow.
4. The student will demonstrate how to instruct and administer incentive spirometry on a patient in an acute care or alternate site.
5. The student will demonstrate how to administrate aerosolized medication via small volume nebulizer to a patient in an acute care or alternate site.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 134 (spring) Brad Franklin

1. The student will be able to explain which class of drugs can be aerosolized.
2. The student will be able identify what the indication for short acting beta agonists in asthma.
3. The student will be able to describe the most common side effects for inhaled corticosteroids.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 135 (spring) Rey Bell

1. The student will know how to apply the alveolar air equation in determining alveolar partial pressure of oxygen ( $PAO_2$ ).
2. The student will explain how to compute the alveolar-arterial  $PO_2$  difference and a/A ratio.
3. The student will explain how to calculate the dissolved oxygen in the plasma and the oxygen carrying capacity of hemoglobin in the blood.
4. The student will be able to explain the difference between obstructive and restrictive conditions on a flow volume loop.
5. The student will explain how to calculate the % improvement from a pre-post bronchodilator pulmonary function test.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 136 (spring) Ken Bryson

1. The student will explain in writing how to setup a ventilator for operation choosing the proper mode, rate, tidal volume and flow rate.
2. The student will explain how to set the high and low pressure alarm on a ventilator.
3. The student will, from a pressure/time graph, identify a ventilator delivered pressure controlled breath.
4. The student will, from a pressure/time graph, identify the SIMV Mode.
5. The student will, from a pressure/time graph, identify the pressure support mode.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 137 (spring) Rey Bell

1. The student will demonstrate how to perform percussion, postural drainage and vibration on a patient in an acute care or alternate site.
2. The student will demonstrate how to set up an aerosol mask, T-piece, Tracheostomy collar, or face tent with supplemental O<sub>2</sub> on a patient, ensuring proper fractional inspired oxygen (FIO<sub>2</sub>), if ordered, and adequate total flow to meet patient inspiratory flow demand. 30/39=77%
3. The student will correctly and adequately demonstrate how to ventilate with a self-inflating resuscitation bag on a patient.
4. The student will demonstrate how to mechanically aspirate secretions, when indicated by auscultation, from the patient's airway.
5. The student will demonstrate how to properly perform IPPB or IPV on a patient in an acute or alternate site.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 138x4 (spring) Brad Franklin

1. The student will be able to identify acute and chronic obstructive respiratory diseases.
2. The student will be able to identify acute and chronic restrictive respiratory diseases.
3. The student will be able to identify the fundamentals of chest radiography interpretations.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 139 (spring) Ken Bryson

1. The student will identify Laplace' Law.
2. The student will know when immature surfactant first appears.
3. The student will know the three cardinal signs of respiratory distress
4. The student will calculate how long a H cylinder running at 3Lpm will last.
5. The student will calculate the duration of a liquid oxygen reservoir running at 2Lpm.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 230 (summer) Amber Contreras

1. The student will be able to identify the structures involved and the mechanics of the chemical and neurologic control of breathing.
2. The student will be able to identify the physiologic and clinical indications, contraindications, and hazards of continuous mechanical ventilation.
3. The student will be able to perform the following physiologic calculations:
  - a. Alveolar air equation
  - b. Oxygen content
  - c. Alveolar ventilation
  - d. Alveolar to arterial oxygen pressure
  - e. Arterial to venous oxygen content difference
  - f. Cardiac output
  - g. Calculate the adequacy of tissue oxygenation

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 231 (summer) Ken Bryson

1. The student will be able to identify when to use a straight blade of a laryngoscope, and where the blade tip is to be placed.
2. The student will be able to identify the pressure range that will be required to ventilate an infant who has not taken a first breath.
3. The student will be able to identify the flow rate in an adult volume-cycled ventilator and what will result.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 232 (summer) Michael Sheahan

1. Student will be able to distinguish between different obstructive diseases. Rubric: Respiratory Care Achievement
2. Student will be able to determine oxygenation status and identify appropriate treatment. Rubric: Respiratory Care Achievement
3. Student will be able to identify causes for changes in oxygenation status with obstructive disease processes.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 233 (summer) Rey Bell

1. The student will demonstrate how to draw arterial blood sample via needle and syringe from a patient, using proper procedure and universal precautions.
2. The student will demonstrate how to change a ventilator circuit when indicated, maintaining clean technique and assuring minimal interruption of ventilation on a patient in an acute care or alternate care site.
3. The student will demonstrate how to perform a minimum leak technique or a minimal occluding volume for cuff inflation on intubated or trached patient.
4. The student will demonstrate how securely tape or retape a nasal or oral ET tube on a patient.
5. The student will demonstrate how to extubate a patient using proper procedure and universal precaution.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

Resp 234 (fall) Amber Contreras

1. Identify the various respiratory and metabolic acid-base problems, and be able to interpret the results of blood gas analysis using the Henderson-Hasselbach equation
2. Identify the physiologic effects of electrolyte disturbances caused by both elevated and reduced levels of various electrolytes and their relationship to acid-base balance interpretation
3. Identify the signs and symptoms of cardiopulmonary distress and be able to discuss their etiology and identify effective therapeutic interventions.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

Resp 235 (fall) Michael Sheahan

Upon successful completion of this course:

1. Student will be able to demonstrate proficiency in the management of the patient with ARDS.
2. Student will be able to demonstrate proficiency in assessment of cardio-respiratory disease processes and their subsequent effect on the function of vital systems as it applies to respiratory care.
3. Student will be able to demonstrate understanding of hemodynamic responses to respiratory illnesses.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP CARE 236 (fall) Rey Bell

1. The student will demonstrate how to draw a blood sample from an arterial line using aseptic technique.
2. The student will demonstrate how to assess a patient's ventilatory status using safe, aseptic technique and minimizing patient discomfort.
3. The student will explain how to identify general anatomical landmarks, tube placement, or any other artificial apparatus when viewing patient's chest film.
4. The student will demonstrate how to perform an ECG on a patient in an acute care or alternate care site.
5. The student will demonstrate how to monitor ventilator parameters according to RT department policy.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 237 (fall) Ken Bryson

1. What clinical findings would be most consistent with categorizing a patient with compensated shock?
2. What is the role of fibrinolytics in ACLS
3. What is an important principle in managing sinus tachycardia?

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action

RESP 238x4 (fall) Ken Bryson

1. The student will recognize which device is most effective at increasing the absolute humidity delivered to a patient.
2. The student will determine the best way to measure a spontaneous minute ventilation.
3. The student will determine what medication is for a 2-year-old child with an upper airway infection with audible stridor.
4. The student will recommend the correct medication for severe bronchospasm.
5. The student will identify the correct cause of EPAP below the prescribed levels.
6. The student will determine when IPPB should be determined.

Method of evaluation:

Evidence of evaluation

Assessment

Discussion

Action