# RSPC A275: RESPIRATORY CARE PROCEDURES

| Item | Value |
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| Curriculum Committee Approval Date | 10/07/2020 |
| Top Code | 121000 - Respiratory Care/Therapy |
| Units | 3 Total Units |
| Hours | 72 Total Hours (Lecture Hours 54; Lab Hours 18) |
| Total Outside of Class Hours | 0 |
| Course Credit Status | Credit: Degree Applicable (D) |
| Material Fee | Yes |
| Basic Skills | Not Basic Skills (N) |
| Repeatable | No |
| Grading Policy | Standard Letter (S) |

## Course Description

Respiratory care procedures, including physical assessment of the chest, chest x-ray assessment, airway management, bronchoscopy, chest tube drainage, electrocardiogram performance and interpretation, and ALS procedures. PREREQUISITE: RSPC A185. Transfer Credit: CSU.

## Course Level Student Learning Outcome(s)

1. Describe and apply knowledge of artificial airways, management of airways, resuscitation devices, cardiopulmonary assessment, advanced life support and bedside patient evaluation/therapeutic modes.

## Course Objectives

- 1. Describe and demonstrate the various ways to maintain a patent airway including proper positioning, recognition of a difficult airway and suctioning SCANS: Information
- 2. Describe and demonstrate how to establish and manage a patients airway including the insertion,care, and removal of the following airways: nasopharyngeal, oropharyngeal, laryngeal mask, esophageal-tracheal, endotracheal, tracheostomy, laryngectomy, and speaking valves.
- 3. Describe and demonstrate the use of assisted ventilation devices such as a bag-mask-valve device and a demand valve. SCANS: Information, Thinking
- 4. Assess pulmonary status by using chest physical assessment techniques. SCANS: Thinking
- 5. Assess cardiac status by evaluating the EKG. SCANS: Thinking
- 6. Perform a standard twelve lead EKG. SCANS: Technology
- 7. Identify and recommend appropriate drug therapy during Advanced Life Support. SCANS: Thinking
- 8. Describe technique for cardioversion and defibrillation. SCANS: Thinking
- 9. Describe the procedures and equipment used during fiberoptic bronchoscopy. SCANS: Thinking
- 10. List the RCPs functions when assisting with fiberoptic bronchoscopy. SCANS: Information
- 11. Describe chest drainage systems and apply to patient situations. SCANS: Information
- 12. Identify the appropriate Respiratory Care Techniques applied in High-Risk Situations. SCANS: Thinking

## Lecture Content

Airway Management Suctioning Indications Hazards Technique Closed vs open technique Tracheal tube and nasotracheal Types of suction catheters Ventilation assist devices Bag-valve mask Self inflating Flow inflating Disposable vs reusable Demand valves Artificial airways Oro- and nasopharyngeal Endotrachael Laryngeal Mask Esophageal-Tracheal Laryngectomy Speaking valves Indications for each Hazards for each Insertion and removal procedures for each Tracheostomy Indications Cuffed vs. cuffless vs. fenestrated Hazards Techniques for insertion and removal Performing care of airway Role of the RCP during procedure Bronchoscopy Indications Hazards Equipment RCPs role during the procedure Conscious sedation Chest Tube Drainage Indications Theory of operation Insertion RCPs role during the procedure Patient assessment and troubleshooting Physical Assessment of the Chest Chest wall topography Techniques Observation Palpation Percussion Auscultation Normal findings Abnormal findings and their significance Chest X-Ray Assessment Quality of imaging Patient positioning Penetration Procedure for assessing an X-ray Identification of structures, tubes and catheters, and foreign bodies Identification of cardiopulmonary abnormalities: normal chest, consolidation/infiltrates, tumors, hyperinflation, atelectasis, pleural effusions, pneumothorax, pulmonary hypertension, pulmonary edema and interstitial disease Identification of presence or change in: hemidiaphragms, mediastinum, or trachea #000000;">Respiratory Care Techniques in High-Risk Situations Emergencies Cardiopulmonary Cardiac Arrest Tension Pneumothorax Ostructed / Lost Airway Medical Emergency Team / Rapid Response Team EKG Cardiac physiology Performing EKGs Lead placement Identification of leads 3 lead, 12 lead, 15 lead Machine setup and calibration Artifacts Interpretation Normal EKG Sinus arrhythmias Atrial arrhythmias Junctional arrhythmias Ventricular arrhythmias Heart blocks Pacemaker rhythms Advanced Cardiac Life Support Drug therapy in ACLS Defibrillation and Cardioversion

## Lab Content

Physical Assessment Chest X-Ray Assessment Airway Management ACLS procedures Suctioning

## Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- Lab (04)
- DE Live Online Lab (04S)

## Instructional Techniques

Lecture discussions, laboratory demonstrations, clinical simulations, patient case studies

## Reading Assignments

Students will spend 3-4 hours weekly reading 1-2 textbook chapters and related primary/secondary source material per week.

## Writing Assignments

Students will spend 3 hours weekly completing and preparing for written assignments. Homework based on weekly course content; chest assessment and CXR, suctioning, artificial airways, bronchoscopy, chest

tubes, and EKG. Content-based written examinations including; unit examinations, midterm, comprehensive final exam, and lab practicum.

## Out-of-class Assignments

Students will spend 3 hours weekly in the study and application of concepts in the physical assessment of the patient by completing homework assignments pertaining to weekly course content.

## Demonstration of Critical Thinking

Measured by written and objective examinations

## Required Writing, Problem Solving, Skills Demonstration

Written and objective examinationsDemonstration of lab skillsInterpretation of electrocardiogram

## Eligible Disciplines

Respiratory technologies: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

## Textbooks Resources

1. Required Aehlert, B. ACLS Study Guide, 4th ed. Elsevier/Mosby Publishing, 2012 Rationale: - 2. Required Corning, H.S.. Mosbys PDQ for Respiratory Care, 2 ed. Elsevier/Mosby Publishing,, 2012 Rationale: - 3. Required Goldberger, A.L.. Clinical Echocardiography A Simplified Approach, 8 ed. Elsevier Health Sciences, 2012