

**Bossier Parish Community College  
Master Syllabus**

**Course Prefix and Prefix and Number:** RSTH 202

**Credits Hours:** 4

**Course Title:** Fundamentals of Respiratory Care

**Course Prerequisites:** RSTH 203

**Textbooks:** Kacmarek, R., Stoller, J., & Heuer, A. (2016). EGAN'S Fundamentals of Respiratory Care (latest edition): Elsevier.

White, G; Basic Clinical Lab Competencies in Respiratory Care, latest edition

**Course Description:**

Lecture/laboratory course covering the basic principles of respiratory care and the equipment utilized in therapeutic and diagnostic procedures. Content includes gas therapy, medical gas delivery systems, medication delivery, chest physiotherapy, arterial blood gas analysis, hyperinflation techniques, airway management, and patient assessment. Enrollment in Respiratory Therapy courses is limited to students who have applied, been interviewed and have been selected for the Respiratory Therapy Clinical Program.

**Learning Outcomes:**

At the end of this course the student will be able to:

- A. perform basic, common respiratory care procedures and display minimum competency in the performance of these basic, general ward/floor care-level inpatient respiratory care modalities in oxygen therapy, bronchial hygiene therapy, and humidity/aerosol therapy as directed by a physician's order;
- B. apply scientific concepts to understand principles and procedures of respiratory care performed in a general ward/floor care setting of an acute care setting;
- C. utilize critical thinking to prescribe appropriate respiratory care indicated by information obtained from patient assessment and diagnosis while proposing modifications to therapy as indicated;
- D. troubleshoot patient scenarios based on clinical and diagnostic information obtained at bedside or within the medical record; and
- E. critically appraise implications of therapeutic need in patients with cardiopulmonary disease, indicating proper suggestions for care.

To achieve the learning outcomes, the student will:

- 1. define, calculate and clinically apply the gas laws. (B, C, D)
- 2. discuss and demonstrate the use of various gas therapy delivery devices. (B, C, D, E)
- 3. discuss the difference in humidity versus aerosol therapy and demonstrate the clinical use of these devices. (B, C, D, E)
- 4. perform basic assessment procedures and interpret basic diagnostic data. (A, C, D, E)

5. discuss and demonstrate the various devices utilized to deliver oxygen therapy and monitor, evaluate and make recommendations for change once therapy has been initiated. (B, C, D, E)
6. discuss and demonstrate airway clearance. (B, C, D, E)
7. perform arterial blood gas acquisition via needle puncture, analyze results and make recommendations for improving status. (A, C, D, E)
8. perform positive pressure techniques and discuss the indications and contraindications for use. (A, C, D, E)
9. assess oxygenation status and make recommendations for the initiation or discontinuance of therapy. (B, C, D, E)
10. assess ventilation status and make recommendations for the initiation or discontinuance of therapy. (B, C, D, E)
11. effectively conduct a patient interview and assessment (A)
12. describe and abide by all infection control policies and procedures of an acute care environment (B)
13. discuss and perform bronchial hygiene treatments for secretion removal (B, C, D, E)
14. discuss different types of manometers and respirometers (B)
15. demonstrate competency in the performance of: (A, C, D, E)

#### **OXYGEN THERAPY**

- a. Nasal Cannula
- b. Simple Face Mask
- c. Partial Rebreather Mask
- d. Venturi Mask
- e. Non-Rebreather Mask
- f. Oxygen Analyzers
- g. Blenders
- h. Oxygen Concentrator
- i. Portable Oxygen System

#### **HUMIDITY AND AEROSOL THERAPY**

- a. Bubble Humidifier
- b. Large Volume Nebulizer
- c. Small Volume Nebulizer
- d. T-Piece/Trach Collar
- e. Oxyhood
- f. MDI
- g. DPI
- h. Sputum Induction

#### **BRONCHIAL HYGIENE AND HYPERINFLATION THERAPY**

- a. Chest Physical Therapy
- b. Postural Drainage
- c. Percussion and Vibration
- d. Coughing and Deep Breathing
- e. IPV
- f. Incentive Spirometry
- g. IPPB
- h. PEP

#### **CARDIOPULMONARY RESUSCITATION & MISCELLANEOUS**

- a. Ventilation

- b. Chest Compression
- c. Airway assessment

#### **ARTIFICIAL AIRWAY MAINTENANCE**

- a. Nasal-Tracheal Suction
- b. Artificial Airway Suction
- c. Manual Self-Inflation
- d. Nasopharyngeal airway
- e. Oropharyngeal airway

#### **BLOOD GASES**

- a. Arterial Puncture
- b. ABG Analysis

#### **DIAGNOSTIC & ASSESSMENT PROCEDURES**

- a. Pulse Oximetry
- b. EKG
- c. Vital Signs
- d. Auscultation
- e. Percussion
- f. Palpation
- g. General Chest x-ray interpretation

**Course Requirements:** To earn a grade of “C” or higher the student must earn 70% of the total points for the course and meet all of the following course requirements.

- minimum overall average of 70% in the course
- successful completion of the lab practicum with average of 70%
- successful performance of competencies in lab

#### **Course Grading Scale:**

- A- 90% or more of total possible points and successful completion of the lab practicum with average of 70%, and successful performance of competencies
- B- 80% or more of total possible points and successful completion of the lab practicum with average of 70%, and successful performance of competencies
- C- 70% or more of total possible points and successful completion of the lab practicum with average of 70%, and successful performance of competencies
- D- less than 70% of total possible points but not less than 60% of total possible points
- F- less than 60% of total possible points

**Attendance Policy:** The college attendance policy, which is available at <http://www.bpsc.edu/catalog/current/academicpolicies.html>, allows that “more restrictive attendance requirements may apply to some specialized classes such as laboratory, activity, and clinical courses because of the nature of those courses.” The attendance policy of the Respiratory Therapy Program is described in the Respiratory Therapy Clinical Handbook.

**Course Fees:** This course may be accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, certification exams and/or clinical fees.

## **Nondiscrimination Statement**

Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

### COORDINATOR FOR SECTION 504 AND ADA

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Reviewed by T. Gilmore, March 2019