



INSTRUCTIONAL PACKAGE

RES 121

Respiratory Skills I

Effective Term
Fall/2019

INSTRUCTIONAL PACKAGE

Part I: Course Information

Effective Term: Fall 2019 (201910)

COURSE PREFIX: RES 121

COURSE TITLE: Respiratory Skills I

CONTACT HOURS: 2 Lecture/6 Lab

CREDIT HOURS: 4

RATIONALE FOR THE COURSE:

RES 121 course provides students with the ability to identify the goals indications, contraindications, and hazards for oxygen, humidity, medication aerosols, and lung inflation devices. As a student you will learn how to administer safe and effective respiratory procedures for oxygen, humidity, medication aerosols, and lung inflation therapies. Students will calculate tank durations, air to oxygen ratios, patient gas flow demands, oxygen, and acid-base balances.

COURSE DESCRIPTION:

This course includes a study of basic respiratory therapy procedures and their administration.

PREREQUISITES/CO-REQUISITES:

General Education courses BIO 210, 211, 225, MAT 120, ENG 101, PSY 201, and HUM. As well as, admission to the Respiratory Care Program. Required prerequisite courses must be completed with a grade of "C" or better.

REQUIRED MATERIALS:

- Kacmarek, R.M., Stoller, J.K., & Heuer, A.H. (2017). Egan's Fundamentals of Respiratory Care (11th ed). St. Louis, MO: Elsevier/Mosby. ISBN: 9780323341363
- Kacmarek, R.M., Stoller, J.K., & Heuer, A.H. (2017). Egan's Fundamentals of Respiratory Care (11th ed). St. Louis, MO: Elsevier/Mosby. Workbook. ISBN: 9780323358521

Please visit the Bookstore online site for most current textbook information. Use the direct link below to find textbooks.

[BOOKSTORE.](#)

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L), HGTC's student portal for course materials.

WaveNet and D2L email access.

CLASSROOM ETIQUETTE:

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

PLAGIARISM & CHEATING:

Refer to the College catalog & Student handbook HGTC Handbook.

The student may be assigned a failing grade for the course or may be required by the professor to withdraw from the course and/or the respiratory care program. Such actions are deemed to be unprofessional behavior within this program and will not be tolerated.

Part II: Student Learning Outcomes

1. Recall in writing and verbally the factors relating to the goals, indications, and contraindications, and hazards of the following therapies: oxygen, humidity, medication aerosol, and lung inflation. (Cognitive-Knowledge)
2. Demonstrate in a safe and effective manner the following respiratory procedures: oxygen therapy, humidity/medication aerosol therapy, lung inflation therapy and basic life support. (Psychomotor-Skills) & (Affective-Behavior)
3. Perform mathematical calculations to evaluate tank duration, air to oxygen ratios, patient gas flow demand, oxygenation and acid base balance.

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

Module 1

Material Covered:

- Medical Gas Principles
- Storage and Delivery of Medical Gases
- Gas Exchange and Transport

Assessments:

- Homework
- Discussion Post
- Skill Check Assessment/Laboratory Competency
- Unit Test

Learning Outcomes:

1. Demonstrate in a safe and effective manner the storage of medical gases.
2. Describe in writing and verbally the factors relating to the goals, indications, contraindications and hazards of oxygen therapy.
3. Describe in writing and verbally the factors relating to the indications of oxygen therapy.

4. Describe in writing and verbally the factors relating to the contraindications of oxygen therapy.
5. Describe in writing and verbally the factors relating to the hazards of oxygen therapy.
6. Perform mathematical calculations to evaluate tank duration.

Module 2

Material Covered:

- Medical Gas Therapy
- Basic Lab Data
- O₂ Analyzer Lab

Assessments:

- Homework
- Discussion Post
- Case Study
- Skill Check Assessment/Laboratory Competency
- Unit Test

Learning Outcomes:

1. Describe in writing and verbally the factors relating to the goals, indications, contraindications and hazards of Oxygen therapy.
2. Identifies partial pressure and oxygen saturation level that defines hypoxemia
3. Identifies additional clinical indications for oxygen therapy
4. Identifies potential complications
5. Explains difference between high flow and low flow system
6. Identifies approximate oxygen percentages, air entrainment ratios, and total flow delivered with this device (ref#5)
7. Demonstrate in a safe and effective manner delivery of low flow and high flow oxygen therapy.
8. Demonstrate in a safe and effective manner the delivery of medical gases.
9. Perform mathematical calculations to evaluate oxygenation.
10. Identify how a Galvonic (Fuel Cell method) measures O₂.
11. List the steps to calibrating a Galvonic O₂ analyzer.
12. Identify 5 Key O₂ Analyzer Trouble Shooting Steps

Module 3

Material Covered:

- Humidity/Medication Aerosol Therapy
- Humidity and Bland Aerosol Therapy Chapter 38
- Medication Aerosol Drug Therapy Chapter 39

Assessments:

- Homework
- Discussion Post
- Case Study

- Skill Check Assessment/Laboratory Competency
- Unit Test

Learning Outcomes:

1. Describe in writing and verbally the factors relating to the goals, indications, contraindications and hazards of Medications aerosol therapy.
2. Identify how aerosols can be weighed and measured.
3. Recognize the patient breathing factors that affect medication deposition & lung location.
4. Identify the Correct Aerosol Delivery Systems based on patient assessment.
5. Demonstrate in a safe and effective manner the use of a peak flow meter using the traffic light system.
6. Identifies potential complications associated with medication aerosol administration and relevant information (i.e. MOA, Classification, complications...) on drug(s) being administered.
7. Differentiates particle sizes targeted for the upper vs the lower airway.
8. Explains what Mass Median Aerodynamic Diameter(MMAD) means in relation to particle sizes being produced (ref#6)
9. Identifies the percent of the drug (aerosol) that reaches the target tissue.
10. Demonstrate in a safe and effective manner delivery of medication aerosol therapy by small volume nebulizer.
11. Demonstrate in a safe and effective manner delivery of medication aerosol therapy by meter dose inhaler.

Module 4

Material Covered:

Lung Inflation Therapy & ABG interpretation

Assessments:

- Homework
- Case Study
- Skill Check Assessment/Laboratory Competency
- Unit Test

Learning Outcomes:

1. Describe in writing and verbally the factors relating to the goals, indications, contraindications and hazards of lung inflation therapy.
2. Identify the basic components of an arterial blood gas and how it relates to the human body.
3. Demonstrate the ability to interpret ABG's, acid base balance, ventilation and oxygenation.
4. Demonstration in a safe and effective manner lung inflation therapy.
5. Identifies potential complications associated with lung inflation therapy.
6. Explains difference between volume and flow devices.
7. Identifies reasonable patient targets for frequency and volume.

8. Demonstrate the ability to assess effectiveness of a particular lung inflation therapy and if needed, offer an alternative lung inflation therapy.

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*

Students' performance will be assessed and the weight associated with the various measures/artifacts are listed below.

Competency:

Pulse Oximetry

Oxygen Setup

Medication Aerosol

MDI Delivery

Peak Flow Meter

EVALUATION*

Homework/Quizzes/Projects	15%
Test	60%
Final Exam	25%
	<hr/>
	100%

LATE ASSIGNMENTS:

1. A maximum of one (1) scheduled exam may be made up at the discretion of the course instructor. Any subsequently missed exams will receive a grade of 0.
2. Makeup examinations will be taken in the testing center on campus or a location designated by the instructor.
3. A 10% overall deduction will be applied to the makeup examination score for missed examinations unless faculty are notified in advance (more than 12 hours) or medical documentation is provided.
4. Late Homework assignments will have a deduction of ten points of the total assignment grade.
5. Homework assignments will not be accepted after 5 days of the due date.
6. Quizzes are taken in class and cannot be made up if missed.

Lab Competency and Skill Check Assessment:

The student is required to successfully complete each skill check assessment for the course prior to the final laboratory competency practical examination or per the instructor's schedule. Three attempts can be made to pass the lab competencies and skill check. The course instructor will announce the due date of the skill check assessments in the course calendar informational sheet.

Summary Performance Evaluation

The following will be used to evaluate the clinical/lab performance:

Satisfactory – Completion of first attempt (85-100%) Performed procedure accurately or was able to

correct performance without injury to the patient or decreasing effect of therapy being given.

Each competency and skill check are considered a pass/fail. If a student makes less than 85% on the first attempt. The student may repeat the competency/skill check two additional times after the first attempt.

Unsatisfactory performance – Completion of first attempt (less than <85%). Requires remediation under the following categories.

- The psychomotor portion of the performance evaluation is a pass/fail grading criterion. After a student's second attempt, if the student does not pass the physical portion with an 85% or greater. Failure of the physical portion of the course will result in failure of the course.
- Failure to complete a critical skill after the second attempt within the psychomotor evaluation will also result as a failure of the course.

GRADING SYSTEM:

State the College's or departmental grading system as delineated in the Catalog. Please note the College adheres to a 10 point grading scale A = 100 – 90, B = 89- 80, C = 79 – 70, D = 69 – 60, F = 59 and below. You must have your Dean's approval if changes in the scale are made.

A grade of "C" or better must be achieved in all required respiratory care program courses for a student to progress through the program. A final grade of less than 75 is not passing in the Respiratory Care Program and does not meet the requirements for progression within the program. This policy is different than the Horry Georgetown Technical College Grading Policy.

GRADING SCALE:

100-90 = A

89-80 = B

79-75 = C

74-69 = D

68 - 0 = F

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the academic calendar for deadlines for add/drop ([ACADEMIC CALENDAR](#)). You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be

present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

Attendance for Face-to-Face Courses:

For a 15-week course (fall and spring) the allowed number of absences for M only class is as follows: 3 absences are allowed regardless of reason. After the allowed number of misses, the student will be dropped from the course with a W or a WF.

For a 15-week course (fall and spring) the allowed number of absences for a MW class is as follows: 6 absences are allowed regardless of reason. After the allowed number of misses, the student will be dropped from the course with a W or a WF.

A tardy is given if the student arrives ten minutes after class starts or before class ends. Three tardies are equivalent to one absence.

Part V: Student Resources

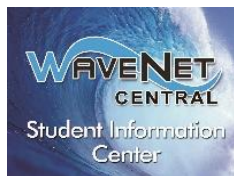


The Student Success and Tutoring Center (SSTC)

The SSTC offers to all students the following **free** resources:

- 1. Academic coaches** for most subject areas, **Writing Center Support**, and **college success skills.**
- 2. On-line student success and academic support resources.**

Visit the SSTC website: [Student Success & Tutoring Center](#) and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, call: SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455 or go to the [Online Resource Center](#) to access on-demand resources any time.



Student Information Center: WaveNet Central (WNC)

WNC offers to all students the following **free** resources:

- 1. Getting around HGTC:** General information and guidance for enrollment!

2. Use the [Online Resource Center \(ORC\)](#) for COMPASS support, technology education, and online tools.
3. **Drop-in technology support or scheduled training** in the Center or in class.
4. **In-person workshops, online tutorials and more services** are available.

Visit the WNC website: [Wavenet Central](#). Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

Student Testing: (If course is offered in multiple format include this section, delete if only F2F sections are offered.)

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through RPNOW, our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

Disability Services:

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Beth Havens, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

Statement of Equal Opportunity/Non-Discrimination Statement

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

Inquiries regarding the non-discrimination policies: Students and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision

may be directed to the Vice President for Student Affairs, Dr. Melissa Batten, VP Student Affairs, Title IX Coordinator, Building 1100, Room 107A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5228, Melissa.Batten@hgtc.edu. Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources, Jacquelyne Snyder, VP Human Resources, Section 504, Title II, and Title IX Coordinator, Building 200, Room 212A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5212, Jacquelyne.Snyder@hgtc.edu.

Title IX Requirements

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college’s Chief Student Services Officer, campus law enforcement, or with the college’s Title IX Coordinator, or designee.

*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

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<p>Dr. Melissa Batten, VP Student Affairs <i>Title IX Coordinator</i></p> <p>Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 Melissa.Batten@hgtc.edu</p>	<p>Jacquelyne Snyder, VP Human Resources <i>Section 504, Title II, and Title IX Coordinator</i></p> <p>Building 200, Room 212A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 Jacquelyne.Snyder@hgtc.edu</p>