



INSTRUCTIONAL PACKAGE

RES 121

RESPIRATORY SKILLS I

Effective Term

Fall/2018

INSTRUCTIONAL PACKAGE

PART I: COURSE INFORMATION

Effective Term: 2018

COURSE PREFIX: RES 121

COURSE TITLE: RESPIRATORY SKILLS I

CONTACT HOURS: 2-6

CREDIT HOURS: 4

RATIONALE FOR THE COURSE:

Upon completion of this course students will be able to:

1. Describe the goals, indications, contraindications and hazards of the following therapies: oxygen, humidity/medication aerosol, and lung inflation.
2. Administer in a safe and effective manner the following respiratory procedures: oxygen therapy, humidity/medication aerosol therapy, and lung inflation therapy.

Perform calculations to evaluate tank duration, air to oxygen ratios, patient gas flow demand, oxygenation and acid base balance.

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
- Respiratory Supply Bag

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.

ADDITIONAL REQUIREMENTS:

List other tools, resources, and materials needed by the student for success in the course, including specific costs associated (i.e., calculators proctor fees, hardware/software). Remove section if you don't plan to use.

TECHNICAL REQUIREMENTS:

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

WaveNet and D2L email access.

March 2018

STUDENT IDENTIFICATION VERIFICATION

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

CLASSROOM ETIQUETTE:

It is recognized that personal communication devices, including smart phones, can play a fundamental role in both education and urgent personal connections (for example, a school calling about a sick child). For this reason, use of such devices is permitted in the classroom, with specific reservations:

1. Please set all devices to 'silent' or 'vibrate' during instructional time.
2. Use of devices during testing is NOT allowed.
3. Please limit use of devices to urgent personal connections and educational purposes directly related to the course material being discussed.
4. If you receive an urgent text/call during class that requires immediate attention, please quietly excuse yourself from the classroom to respond to the call.
5. Please refrain from using 'ear buds' or continually using the device as a learning distraction. Professor retains the right to disallow the use of such devices should the policy become a distraction.
6. When on experiential rotations, students are expected to abide by the policies of that institution.

PLAGIARISM & CHEATING:

Refer to the College catalog & Student handbook (<http://www.hgtc.edu/documents/policys/Chapt9.pdf>). 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

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

- 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)
- 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)
- Perform mathematical calculations to evaluate tank duration, air to oxygen ratios, patient gas flow demand, oxygenation and acid base balance. (Cognitive-Knowledge)

TOPICAL OUTLINE

1. Medical Gas Principles Storage and Delivery of Medical Gases
2. Medical Gas Therapy with Basic Lab Data and O₂ Analyzer Lab
3. Humidity/Aerosol Therapy
4. Lung Inflation Therapy

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.

****Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

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.

EVALUATION*

Evaluation

Quiz / Homework / Discussion Posts	10%
Case Study	15%
Unit Tests	50%
Final Exam	<u>25%</u>
TOTAL	100%

LATE ASSIGNMENTS:

1. A maximum of one (1) scheduled test may be made up at the discretion of the course instructor with proper medical documentation. Any subsequently missed tests will receive a grade of 0.
2. Makeup tests will be taken in a location designated by the instructor.
3. A 10% overall deduction will be applied to the makeup test score for missed examinations.
4. Homework / discussion post / classmate assignments will only be accepted if submitted prior to the designated due date. All assignments not submitted by the designated due date will receive a (0) grade.
5. Quizzes cannot be made up if you are absent a grade of zero (0) will be assigned.

****Students, for the specific number and type of evaluations, please refer to the Instructor’s Course Information Sheet.***

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.

Purpose:

To provide information to each student concerning the calculation of grades and to assure consistency and fairness in assigning grades. The Respiratory Care Program grading policy is different than the HGTC grading policy.

Policy:

1. A grade of "C" or better must be achieved in all required respiratory care program courses in order 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

Each student must demonstrate safety and competence in required laboratory skill check assessments and laboratory competency practical examinations. Each course with a laboratory component includes skill check assessments that must be mastered within the course.

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. The course instructor will announce the due date of the skill check assessments in the course calendar informational sheet. Failure to complete a skill check assessment will not allow the student to complete the laboratory competency practical examination, which will result in failure of the course.

Laboratory Competency Practical Examination

A minimum of 75% and all critical elements must be achieved to pass the laboratory competency practical examination. Three attempts will be given for the competency. Repeat competency will be awarded a maximum of 75%. Students will only be allowed to try the competency one time per day. Failure to pass the competency within three attempts will result in repeat of the failed lab course.

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 eighty percent (80%) of his or her classes in order to be eligible to receive credit for any course. However, due to the varied nature of courses taught at the College, a more rigid attendance policy may be required by individual instructors. At a minimum, a student may be withdrawn from a course(s) after he or she has been absent in excess of ten percent (10%) of the total contact hours for a course. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

For online and hybrid courses, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

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. Room locations and Live Chat is available on the SSTC website.



Student Information Center: WaveNet Central (WNC)

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

2. **Getting around HGTC**: General information and guidance for enrollment!
3. Use the **Online Resource Center (ORC)** for COMPASS support, technology education, and online tools.
4. **Drop-in technology support or scheduled training** in the Center or in class.
5. **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 Jocelyn Williams, 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, gender, national or ethnic origin, age, religion, disability, marital status, veteran status, sexual orientation, gender identity, or pregnancy in educational programs and/or activities.

Title IX Requirements

Horry Georgetown Technical College prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking. Any student who believe he or she has experienced or witnessed discrimination including sexual harassment, domestic violence, dating violence, sexual assault or stalking is encouraged to report such incidents to one of the College's Title IX Coordinators.

*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).

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