

INSTRUCTIONAL PACKAGE

RES 131 Respiratory Skills II

Effective Term Fall 2025

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Part I: Course Information

Effective Term: Fall 2025

COURSE PREFIX: RES 131. COURSE TITLE: Respiratory Skills II.

CONTACT HOURS: 3 Lec/3 Lab. CREDIT HOURS: 4.

RATIONALE FOR THE COURSE:

RES 131 is a course that will identify goals, indications, contraindications, and hazards of basic spirometry testing, arterial blood gas sampling, and suctioning. Students will learn how to calibrate pulmonary function equipment and perform diagnostic studies on patients. The course will identify specific equipment related to pulmonary function testing, arterial blood analysis, and airway suctioning.

COURSE DESCRIPTION:

This course is a study of selected respiratory care procedures and applications.

PREREQUISITES/CO-REQUISITES:

Admission to the Respiratory Care Program. Required prerequisites courses must be completed with a grade of "C" or better.

REQUIRED MATERIALS:

Kacmarek, R.M., Stoller, J.K., & Heuer, A.H. (2025). Egan's Fundamentals of Respiratory Care (13th ed). St. Louis, MO: Elsevier/Mosby. ISBN: 9780323931991

Kacmarek, R.M., Stoller, J.K., & Heuer, A.H. (2025). Workbook for Egan's Fundamentals of Respiratory Care (13th ed). St. Louis, MO: Elsevier/Mosby. ISBN: 9780323932004

Cairo, J.M. (2022) Mosby's Respiratory Care Equipment (11th Ed) St. Louis, MO: Elsevier/Mosby. ISBN: 9780323712217

Please visit the BOOKSTORE online site for most current textbook information.

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

ADDITIONAL REQUIREMENTS:

Stethoscope, finger pulse oximeter, blood pressure cuff (optional), and pocket calculator. 2025-2026

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L), HGTC's learning management system (LMS) used for course materials. Access to myHGTC portal for student self-services.

College email access – this is the college's primary official form of communication.

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 an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

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 the 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 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

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

Module I

Material Covered:

Lung Inflation Therapy Chapter 43

Mucous Clearance Adjuncts/Chest Physiotherapy Chapter 44

Assessments:

- Case Study
- Skill Check Assessment/Laboratory Competency

2025-2026

Test

Learning Outcomes:

- 1. List & Describe the Goals, Indications, and Contra-Indications & Hazards of Chest Physiotherapy
- 2. Identify the major components of pneumatically and electrically powered percussors.
- 3. Describe the theory of operation of devices that enhance clearance of airway secretions by producing high-frequency oscillations to the lungs and chest wall.
- 4. Discuss how mechanical insufflator-exsuffalator devices can enhance airway secretions in patients with respiratory muscle weakness or paralysis.
- 5. Describe in writing and verbally the factors relating to the goals, indications, contraindications, and hazards of lung inflation therapy.
- 6. Demonstration in a safe and effective manner lung inflation therapy.
- 7. Identifies potential complications associated with lung inflation therapy.
- 8. Explain the difference between volume and flow devices.
- 9. Identifies reasonable patient targets for frequency and volume.
- 10. Demonstrate the ability to assess the effectiveness of a particular lung inflation therapy and if needed, offer alternative lung inflation therapy.

Module II

Material Covered: Endotracheal Suctioning: Indications/Contraindications, Equipment, and Patient Egan's Airway Management Chapter 37

Assessments:

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

Learning Outcomes:

- 1. List & describe the goals, indications, contraindications, and hazards of endotracheal suctioning.
- 2. Identify the standard equipment required for the Sterile Suctioning & Closed Ballard Suctioning Techniques.
- 3. Identify the basic steps & equipment required for obtaining a Sputum sample for a C&S.
- 4. Identify the appropriate negative suction pressures based on patient presentation: adult, pediatric and neonatal.
- 5. Demonstrate the ability to calculate the maximum size suction catheter based on patient airway size.
- 6. Demonstrate the ability to appropriately set up and adjust suction equipment based on patient presentation: adult, pediatric and neonatal.
- 7. Identify proactive measures that can be employed to reduce negative side effects of endotracheal suctioning.
- 8. Perform endotracheal suctioning, evaluate secretions, and when necessary, recommend corrective action.

Module III

Material Covered: Pulmonary Function Equipment & Testing: Principles, Equipment, and Case Studies 2025-2026

Egan's Pulmonary Function Testing Chapter 20

Basic Pulmonary Function/Spirometry Perform & Interpretation Chapter 20

Mosby's Assessment of Pulmonary Function Chapter 8

Assessments:

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

Learning Outcomes:

- 1. Identify the standard pulmonary function testing equipment needed for spirometer calibration.
- 2. Describe pulmonary function calibrating principles for Flow & Volume Spirometers.
- 3. Perform equipment calibration using ATS 1s, 3s, 6s criteria.
- 4. Evaluate calibration results and troubleshoot as needed.
- 5. List and describe the goals, indications, and contraindications, hazards of PFT / Spirometry Testing.
- 6. Identify the required elements of patient pre-pulmonary function testing.
- 7. Perform basic spirometry/pulmonary function studies according to current ATS Acceptability & Repeatability standards.
- 8. Interpret basic spirometry/pulmonary function studies as Normal and Obstructive or Restrictive.
- 9. Evaluate basic spirometry/pulmonary function studies as Acceptable & Repeatable.
- 10. Discuss pulmonary function testing principles.
- 11. Identify the standard pulmonary function testing equipment.
- 12. Perform standard pulmonary function studies.
- 13. Interpret standard pulmonary function studies.
- 14. Evaluate standard pulmonary function studies.

Module IV

Material Covered: Blood Gas Analysis: Principles, Equipment, and Analysis

Egan's Acid-Base Balance Chapter 14

Mosby's Blood Gas Monitoring Chapter 10

Assessments:

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

Learning Outcomes:

- 1. List & describe the goals, indications, contraindications, and hazards of arterial blood gas (ABG).
- 2. Identify the standard blood gas equipment and puncture sites.
- 3. Perform and interpret an Allen's Tests for collateral circulation.
- 4. Perform a radial artery (ABG) puncture and when necessary, recommend corrective action.
- 5. Identify the proper conditions required for (ABG) sample for transport & analyzation.
- 6. Demonstrate the ability to achieve the proper conditions necessary for appropriate (ABG) sample for transport and when necessary recommend corrective action.
- 7. Evaluate (ABG) Acid Base Balance as Normal, Impossible, Uncompensated, Partially or Fully

- Compensated, Respiratory or Metabolic Acidosis/Alkalosis and recommend corrective action when needed.
- 8. Interpret the Oxygenation status of an (ABG) Normal, Mild Hypoxemia, Moderate Hypoxemia, and Severe Hypoxemia and recommend corrective action when needed.
- 9. Identify the basic components of an arterial blood gas and how it relates to the human body.
- 10. Demonstrate the ability to interpret ABG's, acid base balance, ventilation, and oxygenation.

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:

Mucous Clearance and Incentive Spirometry

ABG Sampling

PFT Spirometry

EKG

Peak Flow Meter

MDI Delivery

EVALUATION*

Tests	%
Assignments	%
Papers/Plans	%
Projects/Portfolios	%
Class Participation	%
Final Exam	<u>%</u>
	100%

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

Missing/Late Assignments:

- 1. Late assignments after the due date will incur a 10-point penalty.
- 2. Late assignments after end date will not be accepted and grade of zero (0) will be given.
- 3. Arriving late to an exam student will not be permitted to take exam and a 5-point penalty incur, and makeup exam must be completed at testing center within 2 days of exam due date.
- 4. All exams are mandatory and must be completed on date of exam. Exams cannot be made up 2025-2026

^{*}Students - please refer to the Instructor's Course Information sheet for specific information on assessments and due dates.

- unless for extenuating circumstances or doctors excuse is provided. Any subsequently missed exams will receive a grade of 0.
- 5. Makeup examinations will be taken in the <u>testing center</u> on campus, or a location designated by the instructor.
- 6. A 10 Point 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.
- 7. Final exams cannot be made up. Missing a final exam will result in a failure for the course, an "F" will be given for the final grade and removal from the program.
- 8. The discretion of the professor will decide if an absence is excused only under this circumstance will a makeup exam be allowed.

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. Two 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 an additional time 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:

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 <u>academic calendar</u> for deadlines for add/drop. You must attend at least one meeting of all 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.**

The Respiratory Care Program requires a 90% attendance rate. Students who miss more than 90% by either arriving late, leaving early or being absent risk being removed from the program. Please see the Student handbook for more information.

Attendance for Face-to-Face Courses:

For a 15-week course (fall and spring) the allowed number of absences for an M-only class is as follows: 2 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.

Part V: Student Resources



THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):

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

- 1. Academic tutors for most subject areas, Writing Center support, and Academic Coaching for college success skills.
- 2. Online tutoring and academic support resources.
- 3. Professional and interpersonal communication coaching in the EPIC Labs.

Visit the <u>Student Success & Tutoring Center</u> website for more information. To schedule tutoring or coaching, contact the SSTC at sstc@hgtc.edu or self-schedule in the Penji iOS/Android app or at www.penjiapp.com. Email sstc@hgtc.edu or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the SSTC Online Resource Center to access ondemand resources.



STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following free resources:

- 1. Getting around HGTC: General information and guidance for enrollment, financial aid, registration, and payment plan support!
- 2. In-person and remote assistance are available for Desire2Learn, Student Portal, Degree Works, and Office 365.
- 3. Chat with our staff on TECH Talk, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552. Visit the Tech Central website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 TECH (8324), Option # 1.



HGTC LIBRARY:

Each campus location has a library where HGTC students, faculty, and staff may check out materials with their HGTC ID. All three HGTC campus libraries have librarians and staff who can aid with research, computers to support academic research and related school-work, and individual/group study rooms. Printing is available as well at each location. Visit the <u>Library</u> website for more

information or call (843) 349-5268.

STUDENT TESTING:

Testing in an **online/hybrid** course and in **make-up exam** situations may be accomplished in a variety of ways:

- Test administered within D2L.
- Test administered in writing on paper.
- Test administered through Publisher Platforms (which may have a fee associated with the usage) Furthermore, tests may have time limits and/or require a proctor.

Testing candidates must make their appointments 24 hours in advance.

Students must bring a physical ID in order to take a test.

Proctoring can be accomplished either face-to-face at an approved site or online through our online proctoring service. To find out more about proctoring services, please visit the <u>Online Testing</u> 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. Students seeking accommodations are encouraged to visit HGTC's <u>Accessibility and Disability Service webpage</u> for detailed information.

It is the student's responsibility to self-identify as needing accommodations and to provide appropriate documentation. Once documentation is submitted, the student will participate in an interactive process with Accessibility and Disability Services staff to determine reasonable accommodations. Students may begin the accommodations process at any time; however, accommodations are **not retroactive** and will only be applied from the point at which they are approved. Students must contact the office **each semester** to renew their accommodations.

For assistance, please contact the Accessibility and Disability Services team at <u>disabilityservices@hatc.edu</u> or 843-796-8818 (call or text).

COUNSELING SERVICES:

HGTC Counseling Services strives to optimize student success through managing personal and academic concerns that may interfere with achieving educational goals. Staff are available to every student for assistance and guidance on personal matters, academic concerns and other areas of concern. HGTC offers free in-person and telehealth counseling services to students. For more information about counseling services, please reach out to counseling@hgtc.edu or visit the website the Counseling@services webpage.

STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Our sincere commitment to both effective business management and equitable treatment of our employees requires that we present this Policy Statement as an embodiment of that commitment to the fullest.

Discrimination is conduct that includes unjust or prejudicial treatment based upon an individual's sex, race/color, religion, national origin, age, disability, service in the uniformed services (as defined in state and federal law), veteran status, political ideas, marital or family status, pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation, genetic information, genetic identity, gender expression, or sexual orientation that excludes an individual from participation in, denies the individual the benefits of, treats the individual differently, or otherwise adversely affects a term or condition of a person's working or learning environment. This includes failing to provide reasonable accommodation, consistent with state and federal law, to persons with disabilities.

INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:

Student and prospective student inquiries concerning Section 504, Title II, Title VII, 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, Section 504, and Title II Coordinator Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 Melissa.Batten@hatc.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

Affirmative Action/Equal Opportunity Officer and Title IX Coordinator Building 200, Room 205B, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 Jacquelyne.Snyder@hatc.edu

TITLE IX REQUIREMENTS:

Title IX of the Education Amendments of 1972 protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination.

HGTC prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking and will provide students, faculty, and staff with necessary information regarding prevention, policies, procedures, and resources.

Any student, or other member of the college community, who believes that they have been a victim of sexual harassment, domestic violence, dating violence, sexual assault, or stalking may file a report with the college's Title IX Coordinator or campus law enforcement*.

*Faculty and Staff are required to report these incidents to the Title IX Coordinator 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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<u>Jacquelyne.Snyder@hgtc.edu</u>

PREGNANCY ACCOMMODATIONS

Under Title IX, colleges must not exclude a pregnant student from participating in any part of an educational program. Horry-Georgetown Technical College is committed to ensuring that pregnant students receive reasonable accommodations to ensure access to our educational programs.

Students should advise the Title IX Coordinator of a potential need for accommodations as soon as they know they are pregnant. It is extremely important that communication between student, instructors, and the Title IX Coordinator begin as soon as possible. Each situation is unique and will be addressed individually.

Title IX accommodations DO NOT apply to Financial Aid. Financial Aid regulations do not give the College any discretion in terms of Financial Aid eligibility.

Certain educational programs may have strict certification requirements or requirements mandated by outside regulatory agencies. Therefore, in some programs, the application of Title IX accommodations may be limited.

To request pregnancy accommodations, please complete the *Pregnancy Intake Form* that can be found <u>here</u>.