



# **INSTRUCTIONAL PACKAGE**

RES 244

Advanced Respiratory Skills I

Effective Term

Fall 2024/Spring 2025/Summer 2025

# INSTRUCTIONAL PACKAGE

## Part I: Course Information

Effective Term: Spring 2025

COURSE PREFIX: RES.

COURSE TITLE: Advanced Respirator Skills I.

CONTACT HOURS: 3 Lecture/3 Lab

CREDIT HOURS: 4.

### **RATIONALE FOR THE COURSE:**

RES 244 is a lecture and lab course that will further classify mechanical ventilators. In RES 244, you will monitor and evaluate commonly used infant, pediatric, and adult ventilators. You will review advanced airway modalities and care. Explain the need for invasive diagnostics tools used in respiratory care. Lastly, you will explain the respiratory roles in assisting with the diagnostic tools used for diagnosing pulmonary diseases.

### **COURSE DESCRIPTION:**

This course includes an in-depth study of mechanical ventilation and considerations for management of the critical care patient.

### **PREREQUISITES/CO-REQUISITES:**

Respiratory Care Program course RES 141. Required prerequisite courses must be completed with a grade of "C" or better.

### **REQUIRED MATERIALS:**

Cairo, J. M. (2016). Pilbeam's Mechanical Ventilation (7th ed). St. Louis, MO: Elsevier/Mosby. ISBN: 9780323551274

Cairo, J. M. (2016). Pilbeam's Mechanical Ventilation Workbook (7th ed). St. Louis, MO: Elsevier/Mosby. ISBN: 9780323551267

Kettering Classmate® Online Course [Kettering Classmate®](#) (18 month)

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.

### **TECHNICAL REQUIREMENTS:**

Access to Desire2Learn (D2L), HGTC's learning management system (LMS) used for course materials.  
2024-2025

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 for 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 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 clinical rotations, students are expected to abide by the policies of that institution.

### **PLAGIARISM & CHEATING:**

Refer to the College catalog & Student Handbook. The student may be assigned a failing grade for the course, a zero that assignment, 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\*:**

Lab/Lecture I

Material Covered: Difficult Airway, Ventilator Settings Management for Specific Lung Diseases, Ventilator Graphics, and Troubleshooting

Chapter 7 Final Considerations in Ventilator Setup

Chapter 9 Ventilator Graphics

Chapter 18 Troubleshooting and Problem Solving

Assessments:

- Skill Check Assessment/Laboratory Competency
- Quizzes and Classmate Assignments
- Exam

Learning Outcomes:

1. List and Identify types of difficult airways.
2. Explain emergency airway disorder etiology, clinical manifestations, diagnosis, and treatment.
3. Use oropharyngeal and nasopharyngeal artificial airways.
4. Demonstrate oral and nasal endotracheal intubation.
5. Maintain endotracheal tubes with patients on ventilator or other respiratory devices.
6. Select appropriate equipment for alternate airways for difficult airways.
7. Perform steps to wean PEEP on mechanical ventilator.
8. Identify the steps used in a difficult airway algorithm.
9. Set appropriate ventilator alarms.
10. Set appropriate initial ventilator settings for various lung disorders.
11. Identify lung graphics for flow, pressure, volume, and time.
12. Identification of various scalars, curves, and loops.
13. Monitoring patient ventilator graphics and identification of patient-ventilator issues.
14. Troubleshooting patient or ventilator issues.

#### Lab/Lecture II

Material Covered: Ventilator Weaning and Mobilization

Chapter 20 Weaning and Discontinuation from Mechanical Ventilation

Assessments:

- Skill Check Assessment/Laboratory Competency
- Quizzes and Classmate Assignments
- Exam

Learning Outcomes:

1. Explain the indications, contraindications, and hazards of weaning mechanics.
2. List the different modes used for weaning.
3. Identify the different types of equipment used for weaning off mechanical ventilation.
4. Explain the steps to properly weaning off mechanical ventilation.

#### Lab/Lecture III

Material Covered: Liberation from Mechanical Ventilators

Assessments:

- Skill Check Assessment/Laboratory Competency
- Quizzes and Classmate Assignments
- Exam

Learning Outcomes:

1. Explain the indications, contraindications, and hazards of extubation from mechanical ventilation.
2. Explain the steps to properly remove patients from mechanical ventilation.

#### Lab/Lecture IV

Material Covered: Neonatal and Pediatric Mechanical Ventilation and Maintenance

Chapter 22 Neonatal and Pediatric Mechanical Ventilation

Chapter 4 Neonatal Ventilation

Assessments:

- Skill Check Assessment/Laboratory Competency
- Quizzes and Classmate Assignments
- Exam

#### Learning Outcomes:

1. Perform initial neonatal ventilator setup.
2. Identify endotracheal tube placement.
3. Identify ways to improve oxygenation in neonates.
4. Identify and modify ventilator to achieve optimal PEEP.
5. Identify the risk and hazards of using Pressure Control Ventilation and Volume Control Ventilation.
6. Identify the indications for Mechanical Ventilation in a Neonate using assessment and abg parameters.
7. Identify the contraindications of mechanical ventilation for Neonates.
8. Select alternative airway devices to avoid neonatal mechanical ventilation.
9. Set up alternative airway devices to avoid neonatal mechanical ventilation.
10. Perform initial Pediatric ventilator setup.
11. Identify endotracheal tube placement.
12. Identify ways to improve oxygenation in neonates.
13. Identify and modify ventilator to achieve optimal PEEP.
14. Identify the risk and hazards of using Pressure Control Ventilation and Volume Control Ventilation.
15. Identify the indications for Mechanical Ventilation in a Neonate using assessment and abg parameters.
16. Identify the contraindications of mechanical ventilation for Pediatrics.
17. Select alternative airway devices to avoid Pediatric mechanical ventilation.
18. Set up alternative airway devices to avoid Pediatric mechanical ventilation.

#### Lab/Lecture V

Material Covered: Fiberoptic Bronchoscopy

#### Assessments:

- Skill Check Assessment/Laboratory Competency
- Quizzes and Classmate Assignments
- Exam

#### Learning Outcomes:

1. Explain Fiberoptic bronchoscopy indications, contraindications, procedures, and hazards
2. Explain the role of the respiratory therapist in Fiberoptic bronchoscopy assisting

#### Lab/Lecture VI

Material Covered: Thoracentesis

1. Skill Check Assessment/Laboratory Competency
2. Quizzes and Classmate Assignments
3. Exam

#### Learning Outcomes:

1. Explain thoracentesis indications, contraindications, procedures, and hazards.
2. Explain the role of the respiratory therapist in thoracentesis assisting.

3. Contract one chamber, two chamber, and three chamber chest tube drainage systems.

## Lab/Lecture VII

Material Covered: Chest Tube Maintenance

Assessments:

- Skill Check Assessment/Laboratory Competency
- Quizzes and Classmate Assignments
- Exam

Learning Outcomes:

1. Explain chest tube maintenance procedures.
2. Explain the role of the respiratory therapist in chest tube maintenance.

## 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\*

Competency Areas:

Mechanical Ventilation (MV) Weaning

MV Extubation

Neonatal MV Setup

Pediatric MV Setup

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

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.
3. All exams are mandatory and must be completed on date of exam. Exams cannot be made up unless for extenuating circumstances or doctors excuse is provided. Any subsequently missed exams will receive a grade of 0.
4. Makeup examinations will be taken in the [testing center](#) on campus, or a location designated by the instructor.
5. 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.
6. 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.

7. The discretion of the professor will decide if an absence is excused only under this circumstance will a makeup exam be allowed.

## 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 [academic calendar](#) for deadlines for add/drop. 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.

### Attendance for Face-to-Face Courses:

For a 15-week course (fall and spring) the allowed number of absences for a 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.

For a 15-week course (fall and spring) the allowed number of absences for a MW 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 10-week course (summer) the allowed number of absences for a Tuesday class is as follows: 1 absence is allowed regardless of reason. After the allowed number of misses, the student will be dropped from the course with a W or a WF.

Missing a lab day whether it is the same day or different day will incur an absence for the same lecture course.

A tardy is given if the student arrives ten minutes after class starts or before class ends. Three tardies are equivalent to one absence for a 15-week course and two (2) tardies are equivalent to one absence for a 10-week course.

## 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 **college success skills**.
2. Online **tutoring** and academic support resources.
3. Professional and interpersonal communication **coaching** in the EPIC Labs.

Visit the [Student Success & Tutoring Center](#) website for more information. To schedule tutoring, contact the SSTC at [sstc@hgtc.edu](mailto:sstc@hgtc.edu) or self-schedule in the Penji iOS/Android app or at [www.penjiapp.com](http://www.penjiapp.com). Email [sstc@hgtc.edu](mailto:sstc@hgtc.edu) or 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.



### 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. Use the [Online Resource Center \(ORC\)](#) including Office 365 support, password resets, and username information.
3. **In-person workshops, online tutorials and more services** are available in Desire2Learn, Student Portal, Degree Works, and Office 365.
4. **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.





## 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 are equipped with computers to support academic research and related schoolwork; printing is available as well. Visit the [Library](#) 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.

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 [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 HGTC's [Accessibility and Disability Service webpage](#). The Accessibility and Disability Services staff will review documentation of the student's disability and, in a confidential setting with the student, engage in an interactive process to 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. Students will need to reach out to the Accessibility and Disability Services staff each semester to renew their accommodations.

## 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](mailto:counseling@hgtc.edu) or visit the website the [Counseling Services webpage](#).

## **STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:**

Horry-Georgetown Technical College shall not discriminate in employment or personnel decisions or in student admissions or in student decisions, or in all other segments of the College community 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 the educational programs and activities which it operates, and the college is prohibited from discrimination in such manner by applicable laws. Practices and requirements for nondiscrimination extend to the enrollment of students in programs and activities of the College and employment by the College.

All inquiries regarding the federal laws as they relate to discrimination on the basis of sex may be directed to Tamatha Sells, Title IX Coordinator, Horry-Georgetown Technical College, Building 1100C, Room 107B, 2050 Hwy 501 E, PO Box 261966, Conway, SC 29528-6066, 843-349-5218, [tamatha.sells@hgtc.edu](mailto:tamatha.sells@hgtc.edu) or to the US Department of Education Office of Civil Rights. (Telephone: 800-421-3481/Email: [OCR@ed.gov](mailto:OCR@ed.gov)).

Other employee and applicant inquiries concerning the federal laws and their application to the College may be directed to Jacquelyne Snyder, Vice President, Human Resources and Employee Relations & the College's Affirmative Action/Equal Opportunity Officer, Horry-Georgetown Technical College, Building 200C, Room 205B, 2050 Hwy 501 E, PO Box 261966, Conway, SC 29528-6066, 843-349-5212, [jacquelyne.snyder@hgtc.edu](mailto:jacquelyne.snyder@hgtc.edu).

Other student and prospective student inquiries concerning the federal laws and their application to the College or any student decision may be directed to Dr. Melissa Batten, Vice President, Student Affairs, Section 504 & Title II Coordinator Horry-Georgetown Technical College, Building 1100C, Room 107A, 2050 Hwy 501 E, PO Box 261966, Conway, SC 29528-6066, 843-349-5228, [melissa.batten@hgtc.edu](mailto:melissa.batten@hgtc.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).

For more information, contact Tamatha Sells, Title IX Coordinator, Conway Campus, Building 1100C, Room 107B, 843-349-5218, [tamatha.sells@hgtc.edu](mailto:tamatha.sells@hgtc.edu).

## **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\*\*](#).