



INSTRUCTIONAL PACKAGE

RES 101

Introduction to Respiratory Care

Effective Term
Fall/2018

INSTRUCTIONAL PACKAGE

Part I: Course Information

Effective Term: Fall 2018 (201810)

COURSE PREFIX: RES 101

TITLE: Introduction to Respiratory Care

CONTACT HOURS: 2 Lecture/3 Lab

CREDIT HOURS: 3

RATIONALE FOR THE COURSE:

The Introduction to Respiratory Care is a foundational course for learning the basic skills respiratory therapist need in the healthcare field. In Respiratory 101, you will gain knowledge of the history, professional organizations, laws, ethics, and behaviors expected in a respiratory therapist. You will also learn about the basic anatomy and physiology of the respiratory system, infection control procedures, and how oxygen and carbon dioxide is transported in the body.

COURSE DESCRIPTION:

This course includes introduction topics pertinent to entering the respiratory care profession, i.e., medical terminology, ethical issues, and legal issues.

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. ISBN: 9780323358521

Beachey, W. (2013). Respiratory Anatomy and Physiology: Foundations for Clinical Practice (3rd ed). St. Louis, MO: Elsevier/Mosby. ISBN: 9780323078665

Beachey, W. (2013). Respiratory Anatomy and Physiology: Foundations for Clinical Practice Workbook (3rd ed). St. Louis, MO: Elsevier/Mosby. ISBN: 9780323358521 (optional)

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.

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ADDITIONAL REQUIREMENTS:

Stethoscope, finger pulse oximeter, blood pressure cuff, and pocket calculator.

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. Explain the purpose of professional elements of Respiratory Care.
2. Apply patient assessment skills to perform basic respiratory therapy procedures.
3. Perform proper Universal Precautions and Isolation Procedures.
4. Describe the anatomy and physiology of the respiratory system and cardiovascular system
5. Apply the anatomy and physiology of the respiratory system to ventilation.
6. Apply the factors that involve diffusion of gases within the body.
7. Describe the anatomy and physiology of the circulatory system.
8. Explain the factors that are involved in oxygen transport throughout the body.
9. Explain the factors that involve the movement of carbon dioxide and its role in acid-base balance.
10. Explain the effects of aging, high altitude, and high-pressure environments on the cardiopulmonary system.

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

Lab/Lecture 1

Material Covered: The Respiratory Care Profession, Laws, Ethics, Behaviors

History of Respiratory Care Chapter 1

Quality, Patient Safety, Communication, and, Recordkeeping Chapter 3

Ethical and Legal Implications of Practice Chapter 5

Assessments:

Case Study

Skill Check Assessment/Laboratory Competency

Exam

Learning Outcomes: (Affective-Behavior)

1. Learn about the respiratory care profession, laws, ethics, and behaviors.
2. Identify different recordkeeping practices and electronic applications.

Lecture/Lab 2

Materials Covered:

Principles of Infection Prevention and Control Chapter 4

Bedside Assessment of the Patient Chapter 16

Interpreting Clinical and Laboratory Data Chapter 17

Assessments:

Case Study

Skill Check Assessment/Laboratory Competency

Exam

Learning Outcomes:

1. How the physiological principles relate to respiratory care.
2. Performing patient interviews and patient assessments at the bedside.
3. Interpretation of normal clinical, laboratory data, and arterial blood gas analysis.

Lecture/Lab 3

Material Covered:

Gas Laws, Diffusion, and Oxygen Transport

Physical Principles of Respiratory Care Chapter 6

Gas Exchange and Transport Chapter 12

Analysis and Monitoring of Gas Exchange Chapter 19

Assessments:

Case Study

Skill Check Assessment/Laboratory Competency

Exam

Learning Outcomes:

1. Explain the factors that are involved in oxygen transport throughout the body.
2. Explain the factors that involve the movement of carbon dioxide and its role in acid-base balance.
3. Explain the effects of aging, high altitude, and high-pressure environments on the cardiopulmonary system.

Lecture/Lab 4

Material Covered:

Anatomy and Physiology of the Respiratory System, Ventilation, and Cardiovascular System Chapter 11

The Airways and Alveoli Chapter 1 (Beachey)

The Lungs and Chest Wall Chapter 2 (Beachey)

Assessments

Case Study

Skill Check Assessment/Laboratory Competency

Exam

Learning Outcomes:

1. Identify the anatomy of the lungs and thoracic cavity.
2. Explain the transport of air into the respiratory system.
3. Explain the functions of ventilation in the respiratory system.
4. Identify the parts of the cardiovascular system.
5. Describe how blood travels through the cardiovascular and pulmonary system.

Lecture/Lab 5

Material Covered:

Lung Volumes and Capacity

Assessments:

Case Study

Skill Check Assessment/Laboratory Competency

Exam

Learning Outcomes:

1. List the different lung volume values and capacities.
2. Explain why restrictive and obstructive diseases affect the FRC, the residual volume, and the work of breathing differently.

Lecture/Lab 6

Material Covered: X-ray Interpretations

Review of Thoracic Imaging Chapter 21

Assessments:

Case Study

Skill Check Assessment/Laboratory Competency

Exam

Learning Outcomes:

1. Describe how to evaluate the technical quality of a chest radiograph.
2. List the anatomic structures seen on the chest radiograph.
3. Describe the common radiographic abnormalities seen in the pleura, lung parenchyma, and mediastinum.
4. Understand the value of a computed tomography scan and the use of intravenous contrast.
5. Understand the role of ultrasound and magnetic resonance imaging in imaging the chest.

Lecture/Lab 7

Material Covered:

Gas Laws, Diffusion, and Oxygen Transport

Physical Principles of Respiratory Care Chapter 6

Gas Exchange and Transport Chapter 12

Analysis and Monitoring of Gas Exchange Chapter 19

Assessments:

Case Study

Skill Check Assessment/Laboratory Competency

Exam

Learning Outcomes:

1. Explain the factors that are involved in oxygen transport throughout the body.
2. Explain the factors that involve the movement of carbon dioxide and its role in acid-base balance.
3. Explain the effects of aging, high altitude, and high-pressure environments on the cardiopulmonary system.

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*

Quizzes/Homework/Discussions	10%
Case Study Project	15%
Test	50%
<u>Final Exam</u>	<u>25%</u>
	100%

Competency Areas:

Patient Assessment
Lung/Heart Anatomy
Breath Sounds Identification and Breathing Patterns
Calculations Lab and Terminology
Radiology Interpretations

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. Quizzes cannot be made up if you are absent from class a grade of zero (0) will be assigned.
6. 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 (3) attempts will result in repeat of the failed course.

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.

Unsatisfactory performance – Completion of first attempt (less than <85%). Requires remediation under one of 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:

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.

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

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 twenty percent (20%) of the total contact hours for a course.

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: 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. 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:

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.

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