INSTRUCTIONAL PACKAGE

RES 232
Respiratory Therapeutics

AY 2020/2021
Effective Term
Spring 2021

INSTRUCTIONAL PACKAGE

Part I: Course Information

Effective Term: <u>Spring 2021 (202020).</u>

COURSE PREFIX: RES 232   COURSE TITLE: Respiratory Therapeutics

CONTACT HOURS: 2   CREDIT HOURS: 2

RATIONALE FOR THE COURSE:

RES 232 is a course that will discuss microbiology as they related to respiratory diseases. The course will explain the roles of the respiratory therapist in Disaster Response/Bio-terrorism. Students will learn proper techniques related to patient and family education in a variety of patient care settings. I.e. Pulmonary rehabilitation, home care, and cardiac rehabilitation facilities. Students will also learn about home care equipment and integrate acute care skills with respiratory care in the home.

COURSE DESCRIPTION:

This course is a study of specialty areas in respiratory care, including rehabilitation.

PREREQUISITES/CO-REQUISITES:

Respiratory Care Program first semester courses RES 101, RES 121, RES 246, and RES 152. Required prerequisite courses must be completed with a grade of "C" or better.

REQUIRED MATERIALS:

Kacmarek, R.M., Stoller, J.K., & Heuer, A.H. (2021). Egan's Fundamentals of Respiratory Care (12th ed). St. Louis, MO: Elsevier/Mosby. ISBN: 9780323811217

Kacmarek, R.M., Stoller, J.K., & Heuer, A.H. (2021). Workbook for Egan's Fundamentals of Respiratory Care (12th ed). St. Louis, MO: Elsevier/Mosby. ISBN: 9780323553667

Please visit the [BOOKSTORE](#) online site for most current textbook information. Use the direct link below to find textbooks.

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.

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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 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

1. Apply concepts of microbiology to prevent hospital infections. (Affective-Behavior)
2. Define the categories of COPD as describe by the "GOLD" International project and the treatment plans for each category.
3. State in writing the Medical Response 10 Commandments to Bioterrorism.
4. Utilize the IS-200 course to understand Incident Command Structure for Health Care workers.
5. Apply the goals and expected outcomes of Pulmonary Rehabilitation to patients with COPD.
6. Select and apply the various types of respiratory care equipment in the home care setting.
7. Explain the role of home care for the pulmonary patient.
8. Describe ventilator dependent patient care in home and alternative sites.
9. Describe oxygen, aerosol, and bronchial hygiene therapy techniques in the home.
10.   Explain the role of exercise, nutrition, and psychosocial support for home care patients.
11.   Develop a respiratory care program for home care patients.
12.   Demonstrate respiratory care equipment set up, operation, maintenance, troubleshooting for home use. (Psychomotor-Skills)
13.   Describe psychological considerations among patients. (Cognitive-Knowledge)
14.   Describe nutritional considerations in pulmonary rehabilitation. (Cognitive-Knowledge)
15.   List essential components of pulmonary rehabilitation programs. (Cognitive-Knowledge)
16.   Define pulmonary rehabilitation. (Cognitive-Knowledge)

17.   Suggest smoking intervention techniques to a COPD patient to improve patient's respiratory function. (Cognitive-Knowledge)
18.   Develop rehabilitation program for pulmonary patients. (Cognitive-Knowledge)
19.   Describe application of aerosol and oxygen therapy and bronchial hygiene techniques to pulmonary rehabilitation patients. (Cognitive-Knowledge)
20.   Explain rehabilitation equipment. (Cognitive-Knowledge)

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

Module I
Material Covered: Pulmonary Rehabilitation
Patient Education and Health Promotion Egan's Chapter 54
Cardiopulmonary Rehabilitation Egan's Chapter 55
Respiratory Care in Alternative Settings Egan's Chapter 56
Assessments:
• Homework
• Discussion Post
• Quiz
• Test
Learning Outcomes:
1.   Compare and contrast how adults and children learn.
2.   Describe the methods used to evaluate patient education.
3.   Identify the importance of health education.
4.   Describe the respiratory therapist's role in a disease management program
5.   State the definition and general goals of pulmonary rehabilitation programs.
6.   Identify the exercise conditioning and psychosocial support systems used for COPD patients.
7.   Identify how to evaluate and select patients for pulmonary rehabilitation.
8.   Describe pulmonary rehabilitation program design, including format and content.
9.   List the educational content to be addressed in a pulmonary rehabilitation program.
10.   Identify the components of a pulmonary rehabilitation program, including staffing, facilities, scheduling, class size, equipment, costs, and reimbursement.
11.   Identify outcome measures used to evaluate pulmonary rehabilitation programs.
12.   Identify alternative care settings in which respiratory care is often performed.
13.   Discuss more recent developments and trends in respiratory care at alternative sites.
14.   Identify who regulates alternative care settings.
15.   Identify how to justify, provide, evaluate, and modify (O2) therapy in alternative care settings.
16.   Explain how to select, assemble, monitor, and maintain O2 therapy equipment in alternative settings.
17.   Describe how to instruct patients or caregivers and confirm their ability to provide care in alternative settings.
18.   Explain how to select, assemble, monitor, and maintain portable ventilatory support and continuous positive airway pressure equipment, including applicable interfaces or appliances.
19.   Describe proper documentation regarding patient evaluation and progress in alternative settings.
20.   State how to ensure safety and infection control in alternative patient care settings.

Module II
Material Covered: Microbiology and Hospital Acquired Pneumonia
Pulmonary Infections Chapter 24 (Egan's) & Handout
Assessments:
- Homework
- Discussion Post
- Quiz
- Test

Learning Outcomes:
1. Identify basic terms and principles of microbiology as it relates to respiratory care.
2. Identify the 4 major microbial classifications.
3. Identify a common method of classifying pathogenic bacteria, gram staining (+/-) and shape.
4. Identify the bacterial growth requirements (FATTOM).
5. Describe the sporulation process and the conditions needed for initiation.
6. Identify and define the methods available for the control of microorganisms. (Sterilization, disinfection, sanitization, chemotherapeutic agents).
7. Identify and define each of the sterilization methods along with their mode of action. (Autoclaving, dry heat, gamma irradiation, ultraviolet light, ethylene oxide, glutaraldehyde, cidex, sonacide)
8. Identify and define each of the disinfection and sanitization procedures and mode of action. (Pasteurization, alcohols, phenolic-(Lysol) quaternary ammonium, Iodophors, halogens, hexachlorophene).
9. Identify and define the importance of normal flora.
10. Define the following terms associated with organism and host relationship: pathogenicity, opportunist, pathogen, virulence
11. Identify the 4 factors that determine whether an organism can cause disease.
12. Define a viron.
13. Describe the 5 steps in the viral reproduction and infectivity.
14. Identify the 4 criteria to classify viruses. (Morphology, Viron size, Host, Genome composition)
15. State the incidence and economic impact of pneumonia in the United States.
16. Recognize the pathophysiology and common causes of lower respiratory tract infections in specific clinical settings.
17. Describe the clinical and radiographic findings seen in patients with pneumonia.
18. Identify risk factors associated with increased morbidity and mortality in pneumonia patients.
19. State the criteria used to identify an adequate sputum sample for Gram stain and culture.
20. Describe the techniques used to identify the organism responsible for nosocomial pneumonia.
21. List the latest recommendations regarding empiric and pathogen-specific antibiotic regimens used to treat various types of pneumonia.
22. Identify the strategies to prevent pneumonia.
23. Define hospital-acquired pneumonia, health care–associated pneumonia, and ventilator-associated pneumonia.
24. List the common microbiologic organisms responsible for community-acquired and nosocomial pneumonias.

Module III
Material Covered: Disaster Response/Bio-terrorism
Assessments:
- Homework
- Discussion Post
- Quiz
- Test

Learning Outcomes:
1. Utilize the IS-200 course to understand Incident Command Structure for Health Care workers.
2. Identify the 4 possible routes of infection that could be potentially used in a Bioterrorism event.
3. Identify possible Bio agents that may be used in an event.
4. State in writing the Medical Response 10 Commandments to Bioterrorism.
5. Identify the meaning of the acronym NBC.
6. Identify the five categories of chemical agents that may be use in a chemical attack.
7. List the five points of the "Take home Message" for the Respiratory Therapist.

Module IV
Material Covered: Home Respiratory Care Equipment
Home Care Patient Assessment (Wilkins) Chapter 20
Handout
Assessments:
- Homework
- Discussion Post
- Quiz
- Test

Learning Outcomes:
1. Select and apply the various types of respiratory care equipment in the home care setting.
2. Explain the role of home care for the pulmonary patient.
3. Describe ventilator dependent patient care in home and alternative sites.
4. Identify oxygen, aerosol, and bronchial hygiene delivery techniques in the home.
5. Identify the importance of exercise, nutrition, & psychosocial support for home care patients.
6. Identify the components of a respiratory care program for home care patients.
7. Demonstrate respiratory care equipment set up, operation, maintenance, troubleshooting for home use.

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*

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

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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.

GRADING SCALE:
100 - 90 =   A
89 - 80 =   B
79 - 75 =   C
74 - 69 =   D
68 - 0 =   F

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. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.
4. All missed exams will incur a 10% overall deduction unless medical documentation is provided.
5. Late Homework assignments will have a deduction of ten points of the total assignment grade.

Homework or Quiz assignments will not be accepted after 5 days of the due date. The assignment will close, and students will not have any further opportunities to submit.

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. **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 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 absent.

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 appointments using TutorTrac, visit the Student Services tab in WaveNet. Email 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!
2. Use the [Online Resource Center (ORC)](#) including scheduled technology training, Office 365 support, password resets, and username information.
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.
5. **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).

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 staff 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.

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).

INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX 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 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.

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Jacquelyne Snyder, VP Human Resources
EEO and Title IX Coordinator
Building 200, Room 212A, Conway Campus
PO Box 261966, Conway, SC 29528-6066
843-349-5212
Jacquelyne.Snyder@hgtc.edu