INSTRUCTIONAL PACKAGE

RES 236
Cardiopulmonary Diagnostics

Effective Term
Fall 2022/Spring 2023/Summer 2023

INSTRUCTIONAL PACKAGE

Part I: Course Information

Effective Term: <u>Fall 2022 (202210).</u>

COURSE PREFIX: RES 236   COURSE TITLE: Cardiopulmonary Diagnostics

CONTACT HOURS: 3 Lectures   CREDIT HOURS: 3

RATIONALE FOR THE COURSE:

RES 236 is a course to help you understand and identify the various diagnostic procedures to diagnose different types of respiratory diseases. Based on the diagnostic procedures and diagnosis students will create a treatment plan. In RES 236, you will choose the appropriate respiratory intervention based on the diagnosis of the patient.

COURSE DESCRIPTION:

This course focuses on the purpose, use, and evaluation of equipment/procedures used in the diagnosis and therapeutic management of patients with cardiopulmonary disease.

PREREQUISITES/CO-REQUISITES:

Respiratory Care Program third semester courses RES 235. Required prerequisite courses must be completed with a grade of "C" or better.

REQUIRED MATERIALS:

1. American Heart Association. (2020) Advanced Cardiac Life Support Heartcode. Retreived from, ACLS Heartcode
2. Cairo, J.M. (2014). Mosby's Respiratory Care Equipment (9th ed). ISBN: 9780323096218
3. 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
4. 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

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:

2022-2023

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

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

1. Demonstrate the ability to identify the ATS Acceptability and Reproducible Criteria for Spirometry, Lung Volumes, DLCO and 6-minute walk test.
2. Evaluate the 3 components of a PFT; Spirometry, Lung Volumes, and DLCO and identify as normal, obstructive, restrictive, or mixed, hyperinflation, air-trapping, and diffusion impairment.
3. Demonstrate the ability to perform 6-minute walk test, ABG machine maintenance, patient nutritional assessment, and basic polysomnography monitoring, and when necessary, recommend corrective action.
4. Analyze arterial blood gases.
5. Interpret arterial blood gases.
6. Implement a plan of care for respiratory compromised patients.
7. Select the proper respiratory interventions to treat patients in mild, moderate, and severe respiratory distress.

Module 1
Material Covered: Pulmonary Function Testing, Interpretation, and Evaluation
Assessments:
- Homework/Quizzes
- Paper and Case Study Project
- Exam
Learning Outcomes:
1. Demonstrate the ability to identify the ATS Acceptability and Reproducible criteria for Spirometry, Lung
2. Volumes, DLCO and 6-minute walk test.
3. Evaluate the 3 components of a PFT; Spirometry, Lung Volumes, and DLCO and identify as normal, obstructive, restrictive, or mixed, hyperinflation, air-trapping and diffusion impairment.

4. Discuss pulmonary function testing principles.
5. Identify the standard pulmonary function testing equipment.
6. Perform standard pulmonary function studies.
7. Interpret standard pulmonary function studies.
8. Evaluate standard pulmonary function studies.

Module 2
Material Covered: Blood Gas Analysis
Assessments:
- Homework/Quizzes
- Paper and Case Study Project
- Exam
Learning Outcomes:
1. Discuss blood gas analysis principles.
2. Identify the standard blood gas analysis equipment.
3. Perform standard blood gas analysis.

Module 3
Material Covered: Sleep Studies
Assessments:
- Homework/Quizzes
- Paper and Case Study Project
- Exam
Learning Outcomes:
1. Demonstrate the ability to perform 6-minute walk test, ABG machine maintenance, patient nutritional assessment, and basic polysomnography monitoring, and when necessary, recommend corrective action.

Module 4
Material Covered: Respiratory Interventions
Assessments:
- Homework/Quizzes
- Paper and Case Study Project
- Exam
Learning Outcomes:
1. Implement a plan of care for respiratory compromised patients.
2. Select the proper respiratory intervention(s) to treat patients in mild, moderate, and severe respiratory distress.

Module 5
Material Covered: ACLS
Assessments:
- Homework/Quizzes
- Paper and Case Study Project
- Exam

2022-2023

Learning Outcomes:
1. Identify cardiac rhythms.
2. List drugs used for ACLS.

Recognize clinical applications identified during ACLS

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%

LATE ASSIGNMENTS:
1. 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.
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. 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.
5. The discretion of the professor will decide if an absence is excused only under this circumstance will a makeup exam be allowed.
6. Any assignment that is reopened after the end date will incur 10-point deduction.

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

2022-2023

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: 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.

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 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 <u>Online Resource Center</u> to access on-demand resources.

STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following <u>free</u> resources:

1. **Getting around HGTC**: General information and guidance for enrollment, financial aid, registration, and payment plan support!
2. Use the <u>Online Resource Center (ORC)</u> 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.

Visit the <u>Tech Central</u> website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324), Option #2.

DISABILITY SERVICES:

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to HGTC's <u>Accessibility and Disability Service webpage</u>. 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.

2022-2023

*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.

> **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