



INSTRUCTIONAL PACKAGE

RES 154
Clinical Applications II

Effective Term
Fall 2024/Spring 2025/Summer 2025

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Part I: Course Information

Effective Term: Fall 2024/Spring 2025/Summer 2025

COURSE PREFIX: RES 154

COURSE TITLE: Clinical Applications II

CONTACT HOURS: 12

CREDIT HOURS: 4

RATIONALE FOR THE COURSE:

RES 154 is a clinical course for students to demonstrate the ability to apply current and previously acquired clinical skills to patients in current clinical rotations in a professional manner. Students will present a case presentation to integrate clinical and classroom theory. Course material will be applied to successfully pass respiratory care credentialing exams. You will perform basic respiratory care procedures in a safe and effective manner, as well as, demonstrate communication skills to deliver an appropriate respiratory care plan. Furthermore, continue to develop skills from previous clinical application courses.

COURSE DESCRIPTION:

This course includes practice of respiratory care procedures in the hospital setting.

PREREQUISITES/CO-REQUISITES:

General Education courses BIO 210, 211, 225, MAT 120, ENG 101, PSY 201, and HUM.

Respiratory Care Program first semester courses. Required prerequisite courses must be completed with a grade of 75 "C" or better.

REQUIRED MATERIALS:

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.

Kettering Simulations Online Course. Classmatelr.com

Dana Oakes, Pocket Guide to Respiratory Care 9th ed. and ABG Pocket Guide, 9th edition.

<https://www.oakesacademy.com/products/index.cfm>

ADDITIONAL REQUIREMENTS:

Stethoscope, Program Uniform, pulse oximeter, note pad for clinical documentation, secondhand watch.

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.

STUDENT IDENTIFICATION VERIFICATION:

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

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.

NETIQUETTE: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit [Online Netiquette](#).

Please see clinical handbook for specific rules of etiquette and phone use at clinical sites.

Part II: Student Learning Outcomes**COURSE LEARNING OUTCOMES and ASSESSMENTS*:**

1. Administer postural drainage/chest percussion
2. Administer mucous clearance.
3. Administer medical gas therapy.
4. Administer Low & High Flow Oxygen Therapy.
5. Administer aerosol therapy with small volume nebulizers.
6. Administer Lung Inflation Therapy.
7. Perform patient assessment and chest assessment including inspection: Palpation, percussion, auscultation, and evaluation of radiograph, laboratory, and other diagnostic materials.
8. Read and Perform Basic EKG
9. Perform and interpret ABG's

Module I

Material Covered: ABG Sampling

Data Arc Sheet

Assessments:

2024-2025

- Clinical Sheets and Attendance
- Clinical Performance and Skills Check
- Case Study and Lab Competency

Learning Outcomes:

1. Identifies at least three non-invasive alternatives.
2. Identifies reasons for variations in sample size.
3. Explain how excess heparin affects the blood gas values.
4. Identify at least four complications associated with arterial puncture.
5. Explain how many minutes should elapse after a change in oxygenation or ventilatory status prior to sampling.

Module II

Material Covered: ECG Monitoring

Data Arc Sheet

Assessment

- Clinical Sheets and Attendance
- Clinical Performance and Skills Check
- Case Study and Lab Competency

Learning Outcomes:

1. Identifies indications for ECG.
2. Describes reason for alcohol rub and skin abrasion.
3. Describes the precise location of the six limb leads and six chest leads.
4. Identifies the normal sequence for interpretation of an ECG trace.
5. Identifies arrhythmias associated with a variety of patient clinical scenarios.

Module III

Material Covered: Breath Sounds and Identification/Chest Assessment

Assessments:

- Clinical Sheets and Attendance
- Clinical Performance and Skills Check
- Case Study and Lab Competency

Learning Outcomes:

1. Review of old and new terminology to describe breathe sounds.
2. Identify adventitious (abnormal) breath sounds.
3. Discuss the physiologic cause for the creation of the adventitious breath sounds and pathologies in which the sound may occur.

Module IV

Material Covered: Mucous Clearance

Assessments:

- Clinical Sheets and Attendance
- Clinical Performance and Skills Check

- Case Study and Lab Competency

Learning Outcomes:

1. List and describe the Goals, Indications, and Contra-indications and 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-exsufflator devices can enhance airway secretions in patients with respiratory muscle weakness or paralysis.

Emphasized Clinical Tasks by Semester Note:

Emphasized Clinical Tasks are those procedures the students are learning to perform and will be evaluated on during the semester. Students are expected to perform all procedures that they have been "Checked Off" on with minimum supervision.

Clinical Competency Performance Criteria

Data Arc clinical assessment sheets are available diagnostic competency and are required to evaluate Student's psychomotor, cognitive and effective evaluation.

Emphasized Clinical Tasks by Semester Note:				
Semester	Class	Course	Emphasized Clinical Tasks	Tasks that may be performed with minimum supervision
Fall	Freshmen	RES 152	Handwashing, Chart Review, Patient Assessment, O2 Therapy, Tanks, Incentive Spirometry, Aerosol/Humidity Therapy, CPR	
	Seniors	RES 253	Mechanical Ventilation, Vent Graphics, NIPPV, Intubation, Home Care, PFT/Interpretation	O2 Therapy, Lung Inflation / IS, Aerosol/Humidity Therapy, Mucus Clearance (P&PD, Flutter Valve), CPR, ECG, ABG analysis, Airway care/Sxn, Mechanical Ventilation, PFT/Interpretation
Spring	Freshmen	RES 154	Medication Aerosol, Lung Inflation Therapy (Easy PAP/ IPPB), Aerosol/Humidity Therapy, Mucus Clearance (P&PD, Flutter Valve), PFT/Spirometry, ABG's, SXN, CPR, ECG	Handwashing, Chart Review, Patient Assessment, O2 Therapy, Tanks, Lung Inflation / IS, Aerosol/Humidity Therapy, CPR
	Seniors	RES 254	Adult Ventilator Care, Cardiac Catheterization, Neo/PEDS, Sleep Lab, Emer. Dept., CPR	O2 Therapy, Lung Inflation/IS, Aerosol/Humidity Therapy, Mucus Clearance (P&PD, Flutter Valve), CPR, ECG, ABG analysis, Airway care/Sxn, Mechanical Ventilation, PFT/Interpretation/PALS/NRP/ACLS
Summer	Freshman	RES 249	ABG analysis, Airway care/Suctioning, Mechanical Ventilation Set Up, ACLS	O2 Therapy, Lung Inflation Therapy (Easy PAP/IPPB), Incentive Spirometry, Aerosol/Humidity Therapy, Mucus Clearance (P&PD, Flutter Valve), CPR, ECG, ABG analysis, Airway care/Suctioning

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*:

The following will be evaluated to obtain a grade in the clinical course requirements:

Cognitive

- Quizzes, tests, case studies, and presentations, etc.

Psychomotor

- All course required Skill Check Assessment and Laboratory Competency Practical Examination

must be completed. All checkoffs are worth 20% of the student's clinical grade.

Affective

- Development of appropriate attitude is as important as skill and knowledge development.

Affective evaluation will focus on attention on the development of professional behaviors.

"Students, who consistently are unable to meet the clinical objectives, use unsafe methods of delivering patient care, who show inadequate preparation in caring for patients, or who demonstrate unprofessional conduct in the clinical area may receive an unsatisfactory clinical evaluation. An unsatisfactory clinical evaluation constitutes failure of the course and immediate withdrawal from the program."

EVALUATION*

Clinical Documentation	25%
Case Studies/Affective Evaluations	25%
Clinical Competencies	20%
Final Lab Exam	15%
<u>Final Lab Exam/Instructor Course Evaluation</u>	<u>15%</u>
	100%

Competency Areas:

ABG Sampling

ECG Application and Monitoring

Chest Assessment/Breath Sound Identification

Mucous Clearance Adjuncts

Please refer to the Student Clinical Handbook on Trajecsys assignments, due dates, and late completion deductions. This course has a Final Exam that must be completed on the scheduled date and cannot be made up. Missing the final exam will result in failure of the course.

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. Three 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 two additional times 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.

Affective Evaluations

Affective evaluations are the third part of the clinical evaluation process. They represent the instructors' overall view of the student's ability to communicate, confidence and independence, initiative and cooperation, maturity, professional ethics, organization and theory application. Points for the observed level of performance are assigned. Guidelines for outstanding behavior are outlined in the Student Handbook, Policies and Procedures of the Respiratory Care program.

5= Exceptional

Ready for clinical application with minimal supervision. Always arrives on time and prepared. Always exhibits concern for the dignity and welfare for patients and team members; prevents conflict of interest; always takes measures to deal with conflict effectively. Demonstrates a superior understanding of the concepts, facts, and theories specific to the situation. Can perform the skill with confidence, without error and greatly exceeding standards. Seldom requires assistance. Plans, always works efficiently and manages time wisely.

4= Above Average

Regularly arrives on time and prepared. Consistently displays concern for dignity and welfare of patients and team members; prevents conflict of interest; seeks assistance when conflict arises. Demonstrates a complete and thorough understanding of the concepts, facts, and theories specific to the situation. Can perform the skill with confidence and above the expected standards. Requires minimal assistance. Completes assigned tasks in a timely fashion, and seldom needs direction.

3= Acceptable

Rarely absent but informs appropriate personnel; is seldom late or unprepared but notifies appropriate personnel. Generally, displays concern for dignity and welfare of patients and team members; avoids conflict of interest; and recognizes conflicts as they arise. Demonstrates a general knowledge of the concepts, facts, and theories specific to the situation. Carries out the skill without significant error and meets the accepted standards most of the time. Requires occasional assistance. Completes assigned tasks, needs occasional direction.

2= Below Average

Is periodically late or unprepared. Sometimes neglectful of patients or team members dignity or welfare; occasionally fails to recognize conflict of interest; needs direction in avoiding conflict. Demonstrates an incomplete understanding of the concepts, facts, and theories specific to the situation. Makes non-critical errors when performing the skill and barely meets the expected standards. Inconsistent in completing tasks and needs help in prioritizing work. Requires frequent prompting or assistance.

1 = Unacceptable

Absent repeatedly and neglects to inform appropriate personnel; student is frequently late and unprepared. Is negligent or inconsiderate of patients or team member's dignity or welfare; or demonstrates conflict of interest; or provokes conflict. Demonstrates no understanding of the concepts,

facts, and theories specific to the situation. Cannot perform the skill or is in danger of harming the patient. Needs constant assistance. Rarely completes assigned tasks, wastes time and needs constant assistance and direction.

N/A Not Applicable- Objective not applicable to this clinical setting

N/O Not Observed-Objective Not Observed to the extent that a rating is appropriate

*designated safety criteria elements that the student must receive the a 4 to pass the course regardless of the average score

designated behavioral foundational elements in clinical practice that the student must receive a 4 to pass the course regardless of the average score

***Students who receive a score less than 3 regardless of average affective score will receive a verbal warning for 1st offense, 2nd offense student will receive a written warning and 10% deduction in overall course grade, and 3rd offense student will be removed from clinical rotations with a "F" as the final clinical grade.

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. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

For online and hybrid courses, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, and if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

Please refer to the Student Clinical Handbook for specific clinical attendance for the Respiratory Care Program.

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 [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 school work; 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 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 or to the US Department of Education Office of Civil Rights. (Telephone: 800-421-3481/Email: 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.

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.

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.

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](#).