



# INSTRUCTIONAL PACKAGE

RES 249

Comprehensive Applications

Effective Term  
Summer/2020

# INSTRUCTIONAL PACKAGE

## Part I: Course Information

Effective Term: Summer 2020 (201930).

COURSE PREFIX: RES

COURSE TITLE: Comprehensive Applications

CONTACT HOURS: 9

CREDIT HOURS: 6

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

RES 249 is a clinical course that further expands your clinical experience by integrating clinical and classroom theory. In RES 249, you will demonstrate the ability to apply current and previously acquired clinical skills to patients in current clinical rotations in a professional matter. 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 the integration of didactic and clinical training in respiratory care technology. This section will introduce students to the alternative types of Respiratory Care including Homecare, Sleep Clinics, and Pulmonary Rehabilitation.

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

RES 154. Required prerequisite courses must be completed with a grade of "C" or better.

### **REQUIRED MATERIALS:**

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

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.

### **ADDITIONAL REQUIREMENTS:**

Scrubs, Shoes, Watch, pocket pulse oximeter, and Stethoscope  
Optional: hemostats and scissors.

### **TECHNICAL REQUIREMENTS:**

August 2019

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

WaveNet and D2L email access.

Data Arc account for clinical time clock, procedure checklist, and clinical assessment evaluations.

- This fee includes the cost of the Data Arc system.

### **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.

When on experiential rotations, students are expected to abide by the policies of that institution.

Guiding Principal for Clinical Policies: The clinical policies for the Respiratory Care Program are established to promote professionalism, ethical behavior and to promote patient safety with minimum disruption to the clinical facility. Course and program rules and regulations, as well as college ones, change as the need arises. Students are expected to follow current policies as directed.

### Criminal Background:

Students may be required to submit to criminal background checks or drug screening before entering a clinical site. If for ANY reason a student is not allowed to attend all clinical sites for training, the student will be unable to complete the clinical course and will be dropped from the program.

### Clinical Handbook Policies and Procedures

#### 1. Attendance:

- a. It is the student's responsibility to be at their clinical assignment as scheduled. Clinical schedules will not be changed without approval of the Director of Clinical Education. All scheduled clinical time (whether in the hospital or outside of the hospital) is subject to all clinical policies.
- b. Clocking In & Out: It is the student's responsibility to accurately account for clinical time completed. Students are required to log in and out of Data Arc using ONLY approved Respiratory Department computers designated for Data Arc access. Students are not allowed to clock in/out on personal devices.
- c. Students unable to report to clinic on any given day for any reason they must notify the Director of Clinical Education/Program Director (leave a voicemail on office phone) and the assigned hospital at least 30 minutes prior to the beginning of the shift. It is the student's responsibility to notify the hospital and Director of Clinical Education.
- d. **No clinical absence is excused** unless student has written documentation for the absence student will not need to make up the missed day.
- e. With and without written excuse students will still incur clinical documentation grade of zero "0" for daily grade and 5% graded deduction for the day.
- f. If students are missing written excuse, then student will be required to make up their clinical day before the final grades are due. If student does not make up the day then they will receive an incomplete "I" as their final grade. The student will not be able to proceed to the next semester until the day is made up.

Grand Strand (843.692.1506) (843.692.1510)

Loris (843.716.8604) (843.716.8604)

Waccamaw (843.777.1156) (843.652.1025) (843.652.1846)

Conway (843.347.1565)

Seacoast (843.366.3604) (843.366.3605)

Georgetown (843.527.7400) (843.527.8064)  
Apria (843.357.3520)

#### Clinical Faculty Contact Numbers

Roxanne Neumann: Office (843.839.1064) email [roxanne neumann email](#)

Sheri Tanner: Office (843.839.1102) email [Sheri Tanner email](#)

#### Procedure for Excused Clinical Time

- g. If you are unable to attend or will be tardy for your clinical assignment, call R. Neumann Office #843-839-1064 or S. Tanner #843-839-1102 and leave your name and reason for absence or tardy on the voice mail. The time you called is recorded by the machine. Immediately after you have left your message, notify the hospital and department of your circumstances. Both the Director of Clinical Education/Program Director and the hospital must be notified 30 minutes prior to your scheduled shift.
- h. If you need to leave clinic for ANY reason, you must attempt to contact the Director of Clinical Education or Program Director. If you are unable to contact them, then have the shift supervisor (Not your clinical Instructor) call 843-839-1064/843-839-1102 to leave a message on the voice mail that you have been given permission to leave clinic and the reason. Students are expected to be in clinic for the FULL time.
- i. Failure to notify the Director of Clinical Education/Program Director and hospital as stated above will result in an unexcused tardy/absence and will lower the student's final clinical grade by 10 points on the first incident. The second incident will result in an "F" grade for the clinical course. (Rationale: All students are expected to communicate with the individual that is responsible for the clinical schedule and with the hospital supervisor. All students are expected to complete the FULL TIME for each rotation unless excused by the Director of Clinical Education or Program Director)
- j. The student's overall grade will be lowered by 5% for each incident. The Program Director will have the final decision over determining whether the situation has extenuating circumstances and warrants a grade adjustment.
  - i. 1st absence – 5% deduction from overall grade
  - ii. 2nd absence – 10% deduction from overall grade
  - iii. 3rd absence – Removal from course and "F" grade

#### 2. Allowable Missed Clinical Time

- a. Students are allowed to miss a maximum of 10% of the total clinical time that is scheduled for the semester. (Example: Clinic meets for 2 days per week for the semester; allowable time a student may miss a total of 2 days for the semester) The procedure for being excused must be followed. (Page 1, 2C)
- b. If students miss 2 consecutive days of clinical student will be removed from the course resulting in an "F" for the semester. The student will not be allowed to reenroll into the program per HGTC attendance policy.
- c. Any absence beyond the allowed time for the semester will result in an "F" grade. Under extenuating circumstances, the DCE may allow the student to miss up to a total of 20% of the total hours. The student is responsible for documenting in writing to the DCE's satisfaction, the extenuating circumstances. The DCE is under NO obligation to accept the student's documentation or extend the student the additional 10% in allotted absences. The student should also understand that arriving to class late or leaving class early counts towards the allotted hours of time missed. Once the student exceeds the hours of absences, the student will be terminated from the course. Students withdrawn from a course due to excessive absences will receive a grade of Withdraw ("W") up to the 2/3 point of the semester. Thereafter, a Withdraw ("W") or Withdrew Failing ("WF") will be assigned dependent upon his/her academic status at the time of last date attended.

- d. Clinical attendance records are maintained in the Data Arc system and begin on the first day of class for both new and returning students, regardless when he/she registers during the five-day registration and add/drop period at the beginning of each term.
- e. The student's overall grade will be lowered by 5% for each excused incident beyond the 10% of clinical time students are allowed to miss. The Program Director will have the final decision over determining whether the situation has extenuating circumstances and warrants a grade adjustment.
- f. Specialty Rotations: Students are responsible for attending at the assigned clinical time in specialty rotations. Failure to do so will result in a 26% reduction in the student's overall final grade.

### 3. Tardiness

- a. Students not clocked by the scheduled time as shown on the clinical schedule, are considered tardy.
  - i. If a student is later than 15 minutes, that constitutes 1 unexcused absence and the student will not be allowed to attend clinic for that day.
  - ii. Three (3) excused tardies are equal to 1 absence. An excused tardy will be deducted from the allowable time that can be missed. Each excused tardy beyond the allowable time that can be missed, will result in a 2.5% reduction in the student's overall final clinical grade.
- b. Failure of the student to follow the procedure for "Excused clinical time" will result in an unexcused tardy.
  - i. Two (2) unexcused tardies will be considered an unexcused absence within a semester and will lower the final grade by 10 points. Any additional unexcused tardy during the semester will constitute an unexcused absence. See (Page 1; 2.C.III) (Example: 2 unexcused tardies = 1 unexcused absence; 2 unexcused absences = "F" grade for the clinical course)

### 4. Consequences of Students being asked to leave Clinic

- a. Should a student be asked to leave ANY clinical rotation by their preceptor for ANY reason, the student will receive an unexcused absence and their final grade will be lowered by 10 points on the first event. The second unexcused absence will result in an "F" grade for the course.

### 5. Switching Clinic Schedule

- a. Students are not allowed to switch their clinic schedule without written approval via email from the DCE or Program Director.
- b. If a switch is made and no approval is given the following consequences will occur:
  - i. 1st offense – 5 pts deducted from final clinic grade and verbal warning for all parties involved
  - ii. 2nd offense – 10 pts deducted from final clinic grade and written warning for all parties involved
  - iii. 3rd offense – 20 pts deducted from final clinic grade and written warning for all parties involved

### 6. Classroom/Clinic/Lab Attire: Should be consistent with all locations.

### 7. Dress Code

- a. All students must be properly attired in clinic as determined by the HGTC dress code (Hospital dress code supersedes HGTC policies):
- b. All Students
  - i. Clean "pewter" scrubs properly fitted (Not tight fitting) (Scrubs must be monogrammed with HGTC logo and program name. Drawstrings should be tucked in pants, optional- only white undershirts are permitted)
  - ii. Black or White, comfortable all leather, low cut shoes, closed back
  - iii. Properly groomed appearance
- c. Appropriate Hospital ID badge.
- d. A legible HGTC Student picture ID badge visible at all times. HGTC insignia must be visible at all times.
- e. Jewelry (optional) one ring per hand, one thin/narrow necklace less than 19" long.

8. Current DataArc packet and clinical objectives/policies.
9. Consequences of Dress code violation and being unprepared for Clinic
  - a. Students must adhere to the dress code and have a stethoscope, watch (with second hand or digital read-out), safety glasses and clinical pocket guide while in clinic. These items are essential in order to function effectively and safely in the clinical environment. Students who violate the dress code and who do not have required equipment in clinic are unprepared and will be given one (1) warning. Any future infraction will result in the student being dismissed from the clinical rotation and will be given an unexcused absence with a lowering of the final grade by 10 points. A third infraction will constitute a second unexcused absence, resulting in an "F" grade for the clinical course.
  - b. The attire should be neat, clean, without wrinkles, and properly fitting with skin colored undergarments. No visible cleavage, chest hair, stomach skin, or back showing.
  - c. Clinic Attire: The attire should be neat, clean, without wrinkles, and properly fitting with skin colored undergarments. The attire consists of a collared shirt/polo and neutral color dress slacks. A lab coat is required in the clinic setting unless the clinical instructor does not require it. Pants must not drag on the floor. No visible cleavage, chest hair, stomach skin, or back showing.
  - d. Lab Attire: Uniform should be loose fitting for ease of mobility in the laboratory setting. The attire should be neat, clean, without wrinkles, and properly fitting with skin colored undergarments. No visible cleavage, chest hair, stomach skin, or back showing. At times there will be exceptions to this policy in the laboratory setting in order to accurately palpate on a lab partner. Proper draping will be instituted as appropriate. Clinic attire is required for laboratory practical competency examinations and when guest lecturers are present.
  - e. Shoes: Skid resistant or non-slip shoes with enclosed toe and heel
  - f. Identification: Student identification must be worn in every clinical setting on the left front bodice/collar of the shirt. Students must wear the HGTC Student ID Badge and/or an Institutional ID Badge in any health care agency, which requires and provides it.
  - g. Jewelry: A wristwatch with a second hand is required. No more than two rings may be worn on the hand. If medically needed, a medical alert bracelet/necklace may be worn. Visible body piercing including tongue stud/ring, clear nasal stud, gauges or brow jewelry is to be removed prior to patient care and not worn while in uniform.
  - h. Tattoos: A visible tattoo must be covered during a clinical experience.
  - i. Hair: Hair must be neat, clean and maintained so as not to contaminate the patient or the caregiver. Extreme hair colors, hairstyles and hair ornaments are not allowed while in uniform. Beards and mustaches must be well groomed and kept clean.
  - j. Fingernails: Nails must be kept short enough so as not to injure the patient. Clear or light-colored nail polish may be worn, as long as it is neat and without designs. Artificial nails harbor yeast and bacteria and are, therefore, not allowed.
  - k. Cosmetics/Fragrance: Cosmetics are to be worn in moderation and be consistent with the expected appearance of a healthcare professional. Scented perfumes, powders, after-shave lotions, colognes, and antiperspirants/deodorants may cause allergic reactions in some individuals and are not to be worn. Lotions and deodorants must be limited to those bearing light or no scent
10. Chewing Gum or Tobacco: Neither of these products is allowed during clinical experiences. The uniform may not smell of smoke upon arrival to the clinical area. Smoke odors embedded in clothing are as offensive as smoking.
11. Required number of procedures for Graduation
  - a. Students will be required to complete a minimum number of documented procedures prior to graduation from their Respiratory Care Program. The requirements are listed on DataArc in the Daily Log section.
  - b. Preparation and Objectives for Clinical Rotations

12. In order for the student to receive effective clinical training, the program will provide clinical objectives to guide the student in becoming more clinically competent.
  - a. All students are required to read and understand the stated clinical objectives prior to starting ANY clinical rotation. All students are required to complete one (1) Rotation Reporting Form for each specialty rotation within 4 days after completing the rotation. Students should work diligently in accomplishing these objectives and take the initiative for their learning seeking out opportunities to improve their knowledge and skill with the direction of their assigned clinical instructor.
  - b. Rest and Alcohol use: To promote patient safety, all students should have adequate rest prior to the clinical assignment. Students must also refrain from alcohol use at least 8 hours prior to the clinical assignment.
13. Professional Clinical Conduct
  - a. Students should conduct themselves in professional and safe manner while in the hospital. The student will remain with the assigned clinical instructor until the end of the shift or until reassigned by the hospital supervisor or program faculty. Should at any time the student be instructed to leave the clinical site by the hospital preceptor, the student is responsible to contact the program director immediately and coordinate a time to discuss the clinical incident with both the program & clinical director. Additionally, the student will not be allowed to return to clinic until the outcome of the faculty & student meeting is resolved.
  - b. If at any time the student perceives that there is an unsafe or threatening environment in which they are unable to resolve, the student should politely request to be excused and report the circumstances to hospital supervisor and the program faculty.
  - c. Refusal to complete/participate in assigned task by clinical preceptor. Student will have 5 points deducted for their final grade. The student will be written up for each occurrence. Second occurrence 10 points will be deducted from their final grade. Third occurrence will result in the student being given "F" for the final clinical grade.
14. DataArc Clinical Record Keeping System DataArc Website
  - a. Introduction
    - i. DataArc is an Internet based clinical record keeping system. The reason for implementing a standard tracking and performance evaluation system is to provide you, the student, with a standard set of clinical objectives and performance evaluations. This helps to ensure that performance standards are high and consistent for all students.
    - ii. What are the Students responsible for?

The Students will be responsible for:

- i. Using only approved Respiratory Department computers designated for Data Arc Access for clocking in and out of their clinical rotations
  - ii. Submitting daily log forms and confirming that your clinical instructor has validated the form
  - iii. Complete a minimum of 6 Clinical Site Evaluations per semester in order to receive credit on clinic grade.
  - iv. Surveys as requested by the program faculty
  - v. Preceptors complete 6 Affective (Student) Evaluations
- b. Once at the Data Arc web site you will need to enter your "log on name" and "password" to gain entry into the system. This is done as a safety mechanism, so your data remains confidential.
  - c. What will you gain by using the Web Based Clinical Tracking Program? An up to date look at your clinical progress as you progress through each semester in the following areas:
  - d. Time Clock - Time clock records track the student's attendance and hours of clinical practice. Students should review their time reports on a frequent basis and report any errors to the program faculty.
  - e. Daily Log - tracks the student's number of observations and performances done on a daily basis in the clinical setting. At the end of your clinical training this can be printed and placed in your portfolio for

future employers to see the number and variety of clinical procedures you have observed and performed.

- f. Competency Evaluations - provides a complete listing of completed competencies. Each competency is referenced and follows Clinical Practice Guidelines when applicable to provide students and clinical faculty with current information. Competencies also provide the student with a series of knowledge questions that may be asked by the Clinical Instructor to confirm your understanding of the procedures performed.
  - g. Preceptor Evaluation - provides the student the opportunity to evaluate their clinical instructor they were assigned to. In the event of a negative preceptor encounter the student should complete an Evaluation Alert evaluation.
  - h. Clinical Site Evaluation- provides the student the opportunity to evaluate the clinical site and the environment in which their learning took place. HGTC students are required to complete 1 Clinical Site Evaluation for each clinical area attended per semester.
  - i. Students are required to complete a minimum of 6 Clinical Site Evaluations per semester in order to receive credit on clinic grade.
  - j. Affective (Student) Evaluations: For each day of clinic rotation, the student must have 1 Affective evaluation completed. For each evaluation not completed by the beginning of Final Exams, the student Affective evaluation portion of the clinical grade will be reduced by 5 points for each missing Affective evaluation. Students are required review each **Affective Evaluation per clinic rotation in order to receive credit on clinic grade.**
  - k. Action to be taken if clinical faculty do not Validate or complete the requested evaluations:
    - i. If a hospital staff member fails to validate a student's record or complete an evaluation after the initial request, the student will request 1 more time verbally or by written note. If the instructor still does not follow through the request within 2-3 days, the student will send a DataArc message to the DCE/PD noting the date and instructors name of the validation and/or evaluation were requested. The student will not be penalized if they follow the above action.
  - l. Back-up procedures if DataArc cannot be accessed:
    - i. If for ANY reason DataArc cannot be accessed the student should complete a paper "Student Daily Log" and have the instructor sign to validate the record.
    - ii. **The student must create a daily log in DataArc** and submit the paper copy to the Director of Clinical Education (DCE)/Program Director within 4 days of the occurrence in order to receive credit for the clinical day. If the student fails to submit the documentation by the end of the 4th day in which the incident occurred, the student will be considered absent and no credit will be given for any procedures done on that record. If the student is unable to complete the deadlines above due to extreme circumstances, they should notify the DCE/PD to be given an extension. "Student Daily Log" forms may be downloaded from the college's D2L web site under the Dropbox section of the course.
  - m. Failure to successfully Clock in or out of Data Arc: Students who are unable to log into or out of Data Arc for any reason are required to notify the Director of Clinical Education immediately at 843-839-1064 and complete a paper log sheet.
  - n. Falsification of a DataArc record is viewed as "Academic dishonesty" and the college policies dealing with Academic dishonesty will be applied to this situation.
  - o. Sharing of passwords, entering data for someone other than yourself under their DataArc account is a violation of security. This behavior is unethical and constitutes a fraudulent representation of clinical records. The "Academic dishonesty" applies to these situations.
15. Telephone policy



- a. Hospital phones are not for personal use unless it is an emergency. All cell phones are to be turned to "Silent mode" while in the hospital. Personal use of phones cannot occur in the patient care areas. Hospital policies may supersede this guideline. Failure to adhere to this policy will result in the student being asked to leave clinic and be counted as an unexcused absence. See (page 2, 2G) for consequences of noncompliance.
16. Student Clinical Education and Hospital Employment
- a. Students may not be incorporated into the department work schedules to serve as staff, paid or unpaid. The guiding principle is that student clinical activities are to be closely supervised in order to ensure that the activities are educational. This is not to say that a student may not assist a staff member in completing their work assignment, but the student cannot accept the staff member's entire workload and not be supervised. To use this practice as a part of clinical training is a direct violation of the Committee on Accreditation for Respiratory Care Standard Section V.C. which states, "All activities required in the program must be educational and students must not be substituted for staff." In addition, it is a violation of the Clinical Affiliate Agreement which states on page 4, the last paragraph "Students must not be substituted for paid personnel to conduct the work of the clinical facility. However, after demonstrating proficiency, students may be permitted to undertake certain defined activities with appropriate supervision and direction".
17. Students found working as a paid hospital employee's while receiving credit for clinic are violating the above principle and will have 26% deducted from their final clinical grade for the semester for each violation. This behavior is also viewed as "Academic dishonesty" because the clinical records are being falsified as a result of duplicated time.
- 18. Accident Occurring on or off Campus**
- a. Accidents involving Faculty, Staff and Student Workers (work-study, clinical student or students on a required internship):
- b. **All exposures of students to blood/body fluids are to be reported immediately to the Employee Health Coordinator or other individual as designated by the specific institution in which the students are exposed.** The student will receive follow up care (first aid, evaluation and prophylaxis as indicated). Student will go to the emergency room at that facility. Post Exposure Protocol will be implemented within one hour following exposure to known or highly suspected HIV positive clients. **Immediately call the program director 843-839-1102 and they will inform the department chair, and Dean of Health Sciences about the exposure. The student will be counseled following the event.**
- c. An accident/illness involving faculty, staff or student worker must be reported immediately to the Human Resources Department (843.349.7134) before seeking medical treatment, if possible, so an accident/incident report can be completed, and Worker's Compensation can be notified. In the event someone in Human Resources cannot be notified, the injured party may contact the College's Worker's Compensation insurance carrier, Compendium Services, to complete an accident/incident report and to receive clearance for treatment at 877.709.2667. If the incident is an emergency, please notify Human Resources as soon as the proper medical attention has been rendered for verification of workers' compensation coverage.
- d. In any event, if an accident occurs, proper documentation needs to be completed. An accident report needs to be filled out stating the name of the injured party, the location of the accident, his/her identification number (social or H number), his/her address & phone number, the date & time of the accident, whether there were witnesses, and a brief description of what occurred. Attached is a copy of the Accident/Incident Report form. A copy of the report needs to be distributed to the following departments: Human Resources, the respective Supervisor, and the Dean/Provost of the specific campus.

- e. If you need to go to the doctor's office, the following locations work in conjunction with our Worker's Compensation:

<b>Doctor's Office Sites for Worker's Compensation</b>
Doctors Care - Carolina Forest 200 Middleburg Dr Myrtle Beach, SC 29579 Mon-Fri 8am-8pm Sat/Sun 9am-5pm 843-903-6650
Doctors Care - North Myrtle Beach 1714 Hwy 17 Myrtle Beach, SC 29582 Every day 8am-8pm 843-361-0705
Doctors Care - Strand Medical 1220 21st Ave. Myrtle Beach, SC Every day 8am-8pm 843-626-9379
Doctors Care - Church Street (Hwy 501) 1113 Church St Conway, SC Every day 8am-8pm 843-248-6269
Doctors Care – Georgetown 1068 North Frazier St Georgetown, SC 29440 Mon-Fri 8am-8pm Sat/Sun 9am-5pm 843-545-7200

## **Part II: Student Learning Outcomes**

### **COURSE LEARNING OUTCOMES and ASSESSMENTS\*:**

Demonstrate effective communication with respiratory preceptors, as well as all other members of the health care team. As well as serving all persons while in clinical rotations without discrimination by acknowledging and appreciating diversity.

2. Demonstrate the ability to record accurate and complete documentation of respiratory care services provided to patients.
3. Students will demonstrate the ability to safely perform and analyze an ABG.
4. Students will demonstrate the ability to perform artificial airway assessment.
5. Students will demonstrate the ability to maintain an artificial airway.
6. Students will demonstrate the ability to perform endotracheal suctioning.
7. Student's will exhibit the critical thinking skills to interpret clinical findings and based on the

clinical findings, provide supraglottic or subglottic tracheal suctioning and suggest modifications to the patient's current respiratory care plan based on AARC CPG's and the clinical affiliates patient care policies.

8. Administer oxygen therapy
9. Administer aerosol therapy to a critical care patient.
10. Administer airway care to a critical care patient.
11. Assess a critical care patient.
12. Assist in providing basic home care procedures including patient assessment.
13. Practice proper and patient specific, emergency care.
14. Apply medical ethics and laws specific to the practice of respiratory care.
15. Apply knowledge and skills needed to successfully pass NBRC exams.

#### Module 1:

Material Covered: ABG Sampling

Dana Oakes

Assessments:

- Classmate
- Data Arc Sheets

Learning Objectives:

1. Perform patient assessment including inspection: Palpation, percussion, auscultation, and evaluation of radiograph, laboratory, and other diagnostic materials.
2. Perform an Arterial Blood Gas according to DAS following AARC CPG's.
3. Assess a critical care patient's ABG Arterial Blood Gas, ECG Electrocardiogram and X-ray.

#### Module 2:

Material Covered: Advanced Diagnostics

Pulmonary Function Testing Chapter 6

Polysomnography Chapter 10

Pulmonary Rehab Chapter 10

Home Care Chapter 10

Assessments:

- Case Study/Tests/Presentations/Lab Competency/TMC Exam
- Clinical Sheets

Learning Outcomes:

1. Explain the purpose of advanced diagnostic procedures.
2. Perform advanced diagnostic procedures including patient assessment testing and evaluation of results.
3. Perform standard rehabilitation/home care procedures including patient assessment, chest physiotherapy, oxygen therapy, aerosol therapy, and exercise therapy.

Pulmonary Function Rotation

Student Preparation:

The student is required to review specific vocabulary / terms associated with caring for patients who need Spirometry, Indirect Volumes studies & DLCO performed.

Overall Objective: The student should safely and accurately perform and interpret the PFT.

Objectives:

1. Observe / participate in the following:
  - a. Proper and timely PFT equipment set up.
  - b. Perform calibration check according to the most current ATS guidelines.
  - c. Obtaining current patient history and subjective information.
  - d. Identify the appropriate testing protocol based on patient presentation.
  - e. The explanation of PFT procedure in an understandable manner to the patient.
2. Perform Spirometry appropriately according to current ATS guidelines.
3. Identify test criteria for Acceptability according to most current ATS spirometry guidelines.
  - a. No cough during the first second of exhalation
  - b. No Obstructed mouthpiece (tongue or dentures)
  - c. No Leak
  - d. Poor patient effort or early termination or cut-off
  - e. They have good starts with an Extrapolated volume 5% of FVC or 0.15 L, whichever is greater.
  - f. No Early Termination / satisfactory exhalation of 6s (3 s for children) or a plateau in the volume–time curve.
4. Observe and participate in making the necessary adjustments to patient performance as needed.
5. Identify the three acceptable spirograms that have been obtained.
6. Identify tests that meet Repeatability criteria according to the most current ATS spirometry guidelines
  - a. The two largest FVC's must be within 150 mL of each other
  - b. The two largest FEV1's must be within 150 mL of each other
  - c. Minimum of three satisfactory maneuvers.
7. Identify if testing criteria has been met and if the testing can be concluded.
8. Observe and participate in the process of assessment and establishing a diagnosis.
9. Observe and participate in the process of developing a treatment plan.

Polysomnography (Sleep Lab) Rotation

Student Preparation:

Prior to this rotation, the student should review terms and concepts associated with polysomnography and CPAP / BiPAP treatment for OSA. Review RLS, insomnia, obesity, MSLT, narcolepsy.

Overall Objective:

To take those skills learned in previous didactic instruction and clinical rotations pertaining to polysomnography and CPAP / BiPAP treatment for OSA and apply these skills to the diagnostic care environment.

Objectives:

1. Understand the uses of the following physiologic electrodes and their role in an all-night sleep study.

- a. EEG leads
- b. Periocular leads
- c. EMG leads
- d. Airflow leads (thermistors)
- e. Chest and abdominal effort leads
- f. EKG leads
- g. SAO<sub>2</sub>
2. Identify the (RDI) following respiratory abnormalities as they occur on a polysomnographic record:
  - a. Obstructive sleep apnea
  - b. Hypopnea
  - c. Central apnea
  - d. Mixed apnea
3. Identify the following sleep stages as they occur on a polysomnographic record:
  - a. Awake
  - b. Stages of Sleep
  - c. REM
4. Identify a desaturation and be able to correlate with the other sleep channel parameters.
5. Understand CPAP and/or BIPAP titration and be able to recommend an initial CPAP / BiPAP levels and the process of incremental increases in CPAP in order to reach a therapeutic level according to each patient's needs.
6. Identify the SpO<sub>2</sub> level that supplemental O<sub>2</sub> would be added to CPAP therapy to correct hypoxemia?
7. Identify how much O<sub>2</sub> would be added initially, the level of SaO<sub>2</sub> desired and the period of time required before the next increase of supplemental O<sub>2</sub>.
8. Understand the significance of a clinical history to a polysomnographic recording.
9. Understand the criteria used for polysomnography reimbursement
10. Patient follow up and treatment to ensure appropriate therapy has started in a timely manner.

### Home Care Rotation

#### Student Preparation:

Prior to this rotation, the student will review the following concepts and terms associated with the Multidisciplinary Care Plan Approach, Case Manager, and criteria used for home care qualification. Review home O<sub>2</sub> administration, O<sub>2</sub> conservation devices, Pulse dosed O<sub>2</sub>, O<sub>2</sub> delivery systems, tanks, liquid, compressors, flow meters, duration of equipment flow, POX, CPAP, BiPAP, Smart card technology, approved home equipment cleaning techniques.

Overall Objective: To give Respiratory Care students exposure to health care services provided outside of the hospital.

#### Objectives:

1. Equipment Set Up: Students should observe and assist with set up / monitoring of durable medical equipment in a patient's home.
  - a. Home Oxygen delivery systems and backup systems:

- i. O2 cylinders
    - ii. Liquid O2
    - iii. O2 concentrators (molecular sieve)
  - b. Patient Care Devices
    - i. Pulse Oximeters
    - ii. Humidity therapy
    - iii. Apnea monitors
    - iv. Pneumocardiograms
    - v. CPAP & BiPAP machines
    - vi. Auto titrating CPAP
    - vii. Smart Card technology
- 2. Safety: Students should observe and assist with patient teaching and the survey of a patient's home to assure:
  - a. Patient safety (filters, signs, electrical, equipment location)
  - b. Infection Control
- 3. Equipment Maintenance:
  - a. Students assist with routine/preventive maintenance of durable medical equipment.
  - b. Cleaning process for processing home equipment.
- 4. Patient Education:
  - a. Students should observe and participate in the continuing patient education.
  - b. Treatment plan implementation
  - c. Exercise plan implementation
- 5. Patient Billing & Insurance:
  - a. Students become familiar with process of billing insurance/government for reimbursement.
  - b. Criteria used to determine patient qualifications for Home Oxygen therapy.

### Pulmonary Rehabilitation Rotation

Overall Objective: Provide the respiratory care student the opportunity to observe and participate in the pulmonary rehabilitation process.

#### Objectives:

1. Assist staff in preparation for receiving patient for the Pulmonary Rehab.
2. Perform an initial assessment of the patient prior to the rehabilitation session.
3. Identify patient target heart rate and exercise goals prior to the rehabilitation session.
4. Assist with monitoring patients during the Pulmonary Rehab.
5. Perform post session assessment.
6. Observe patient counseling sessions with the preceptor.

## 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.

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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%
<u>Final Exam</u>	<u>30%</u>
	100%

Competency Areas:

ABG Sampling  
Adult Intubation  
Bag/Mask Ventilation  
Endotracheal Suctioning

Missing/Late Assignments:

- Missing daily logs will be considered an absence student will incur an absence.
  1. Will be required to make up the day.
  2. Will be considered an unexcused absence.
- 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.
- Makeup examinations will be taken in the testing center on campus or a location designated by the instructor.
- 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.
- Late homework assignments will have a deduction of ten points of the total assignment grade.
- Quizzes cannot be made up if you are absent from class a grade of zero (0) will be assigned.
- 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.

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- 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.
- All Data Arc documentation will be accepted up to 10 days after the due date. Data Arc documentation will not be accepted after the 10 courtesy period and a grade of zero (0) will be assigned to that particular Data portion of the overall grade.

#### Data Arc

Data Arc is a database-tracking system that monitors and collects information of students' clinical performance. Clinical evaluation forms and checkoffs can now be completed online and directly sent to the students' instructors for review. Each therapist has a login and password that allows him or her to enter the system. In addition, each facility has a generic login that allows a therapist to enter data even if he or she is not in the system. It is preferred that all evaluators have an individualized login/password. Below are instructions:

1. Go to Data Arc Website
2. Mouse over Allied Health, Click on Respiratory Care
3. Type the log in and password provided
4. You should now be on the Clinical Instructor/student page navigation page
5. In the light blue box at the top of the page, click on the desired evaluation
6. For Clinical Instructors Select "Add"
7. Complete evaluation

#### 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.

#### 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.



<b>Emphasized Clinical Tasks by Semester Note:</b>				
<b>Semester</b>	Class	Course	Emphasized Clinical Tasks	Tasks that may be performed with minimum supervision
<b>Fall</b>	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
<b>Spring</b>	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
<b>Summer</b>	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

### **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 ahead, 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 1<sup>st</sup> offense, 2<sup>nd</sup> offense student will receive a written warning and 10% deduction in overall course grade, and 3<sup>rd</sup> offense student will be removed from clinical rotations with a "F" as the final clinical grade.

#### **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.

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 ([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.

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## 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.**

## 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 or go to the [Online Resource Center](#) to access on-demand resources any time.

## TECH Central – Student Information Center



TECH Central provides quality enrollment and collegiate guidance for students, faculty, and staff. Services include phone, walk-in, and online technical support for technology training and troubleshooting. Additionally, we offer support in Office 365, Outlook E-mail setup, and ID cards.

**Phone:** 843-349-5340

**Email:** [techcentral@hgtc.edu](mailto:techcentral@hgtc.edu)

**Text:** 843-357-8552

**TECH Talk (Live Chat):** Located on the "Home" tab in WaveNet.

**Website:** [www.hgtc.edu/techcentral](http://www.hgtc.edu/techcentral)

### Locations:

Conway Building 1100, Room 132D

Grand Strand Building 200, Room 136

## Student Testing:

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more 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 RPNOW, 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 Beth Havens, 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, 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.

Inquiries regarding the non-discrimination policies: Students 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](mailto: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, Section 504, Title II, and Title IX Coordinator, Building 200, Room 212A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5212, [Jacquelyne.Snyder@hgtc.edu](mailto:Jacquelyne.Snyder@hgtc.edu).

**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).

<b>Inquiries regarding the non-discrimination policies:</b>	
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.	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.

<p><b>Inquiries regarding the non-discrimination policies:</b></p>	
<p><b>Dr. Melissa Batten, VP Student Affairs</b>  <i>Title IX Coordinator</i></p> <p>Building 1100, Room 107A, Conway  Campus  PO Box 261966, Conway, SC 29528-6066  843-349-5228  <a href="mailto:Melissa.Batten@hgtc.edu">Melissa.Batten@hgtc.edu</a> _</p>	<p><b>Jacquelyne Snyder, VP Human Resources</b>  <i>Section 504, Title II, and Title IX Coordinator</i></p> <p>Building 200, Room 212A, Conway Campus  PO Box 261966, Conway, SC 29528-6066  843-349-5212  <a href="mailto:Jacquelyne.Snyder@hgtc.edu">Jacquelyne.Snyder@hgtc.edu</a></p>