



**RESP 114 Respiratory Physics & Medical section name section credit hours**  
**Credits**  
**Syllabus**

## Course Information

**Meeting times and location:** section meeting\_times section location

**Catalog description:** This course introduces the basic concepts in the physics and the applications of gas laws in respiratory therapy. It discusses the physical characteristics of medical gasses, production, regulation, storage and distribution, and the therapeutic and diagnostic uses of oxygen. Minimum grade required: C"

**Prerequisites:** Take RESP-110 and RESP-112 Take MATH-1155(MATH-114), ENGL-1110(ENGL-111), BIOL-2110/2110L(BIOL-121), CHEM-1120/1120L(CHEM-110)

**Terms offered:** Fall Only

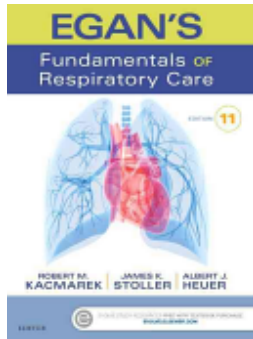
**Section-specific Course Description:**

## Course Level Objectives

1. Analyze assessment data to prioritize patient care and provide patient education to prevent and treat pulmonary disease and disorders.
  1. Discuss the importance and applications of gas physics in respiratory therapy.
  2. Define and differentiate gas pressure, gas flow, and movement of gas molecules.
2. Integrate clinical research and evidence-based practice for informed decision-making in the provision of quality patient care.
  1. Discuss and differentiate the different gas storage systems, station outlets, gas cylinders, and oxygen regulatory devices.
3. Employ leadership concepts to foster communication and collaboration within the interdisciplinary health care team.
  1. Discuss the need for oxygen therapy and how to evaluate a patient's response.

4. Demonstrate the safe use of technology and information management systems.
  1. Demonstrate the oxygen therapy procedure and how to check for proper function.
  2. Compute the duration of flow for compressed and liquid gas therapy.

## Required Texts and/or Materials



### **Egan's Fundamentals of Respiratory Care**

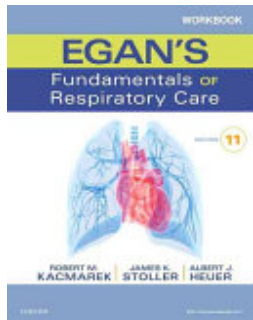
9780323341363

Robert M. Kacmarek, James K. Stoller, Al Heuer

Mosby

2016-04-01

PLUS-- Elsevier Adaptive Quizzing for Respiratory Care (eCm) ISBN 9780323637794. This eAccess is required for online quizzing in ALL RT program courses. You can purchase an access key at [www.evolve](http://www.evolve.com) (Links to an external site.) .com using the ISBN # as it is specific to our courses and program.



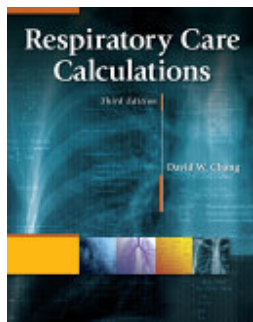
### **Workbook for Egan's Fundamentals of Respiratory Care**

9780323358521

Robert M. Kacmarek

Mosby

2016-04-01



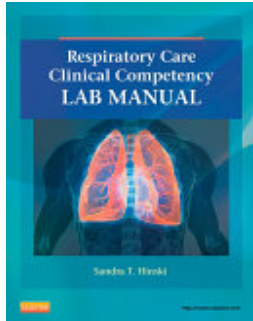
### **Respiratory Care Calculations**

13978111307349

David Chang

Nelson Education

2011-09-23



**Respiratory Care Clinical Competency Lab Manual**  
978032310057  
Sandra T Hinski  
Elsevier Health Sciences  
2014-09-05

## Required Technology and Software

- Canvas
- Chrome, Safari, or Firefox

## Technical Support

Technical support is available through the San Juan College Help Desk 24/7/365. The help desk can be reached at 505-566-3266 or by creating a ticket at [San Juan College Help Desk](#).

For tickets and password reset: [San Juan College Help Desk](#)

For Canvas support information: [Canvas Support](#)

## Accessibility/Privacy Policies for all Technology Tools Used

[Accessibility/Privacy Policies for all Technology Tools Used](#)

## Course Requirements

Students will do the following activities:

1. Discuss the importance and applications of gas physics in respiratory therapy.
2. Define and differentiate gas pressure, gas flow, and movement of gas molecules.
3. Discuss and differentiate the different gas storage systems, station outlets, gas cylinders, and oxygen regulatory devices.
4. Discuss the need for oxygen therapy and how to evaluate a patient's response.

5. Demonstrate the oxygen therapy procedure and how to check for proper function.
6. Compute the duration of flow for compressed and liquid gas therapy.

## COVID Safe Practices for Being on Campus

Masks / cloth face coverings must be worn while on campus in accordance with the New Mexico public health order. If you feel that you cannot wear a mask due to health complications, please contact Disabilities Services:

[disabilityservices@sanjuancollege.edu](mailto:disabilityservices@sanjuancollege.edu) or call (505) 566-3271. Hand sanitizer stations are at all building entrances, please “wash in, wash out”--clean your hands when you enter and before you leave. Classrooms and labs have been arranged to allow for social distancing; please respect your classmates and instructors by staying 6 feet away from everyone. You will be expected to disinfect your table or area prior to class and after class, cleaning products will be provided for this purpose. Check with your instructor for specific policies for their course. Please do not congregate in hallways or common areas, instead utilize our beautiful outside spaces and weather to visit with your friends and colleagues from a safe distance.

If you have been in contact with anyone who has tested positive for COVID-19, has symptoms, or is waiting on test results, contact your instructor and DO NOT come to class. If you have tested positive, have symptoms or are waiting on test results, contact your instructor and DO NOT come to class. Your health care provider or the assigned contact tracer will let you know when it is safe for you to be around others.

## Student Support

### **Student Services and Support**

The Student Support webpage provides information on counseling, tutoring, technical support, and many other support services available to San Juan College students.

[Student Support](#)

### **Academic Support**

Academic Support webpage provides information on academic advising, the library, Testing Center, and the honors program.

[Academic Support](#)

## Participation and Attendance Policy

## Participation and Attendance Policy

Because this course builds on your foundation for future employment as a respiratory care practitioner we expect professional behavior and attendance. The healthcare field has serious responsibilities and the need for competency.

Attendance Policy: As is stated in the Respiratory Therapy Student Handbook-- The Individual instructors may require more stringent attendance requirements. Please read the following which outlines the Attendance requirements for this course.

- Punctual attendance at all scheduled classes and/or events is expected.
- Because of the course content, lab, and clinical experience, attendance is mandatory. All lab/clinical hours must be completed as scheduled. It is the responsibility of the student to notify the instructor regarding class/lab/clinical absence prior to the scheduled class/lab/clinical.

Absences: In the event of an absence, the student must communicate with the instructor before the scheduled class time.

- Two or more absences and/or three tardy/late arrivals will result in counseling with the instructor.
- More than 2 absences are defined as excessive and will result in a 10% reduction in final grade.
- In regards to tardiness (>10 min late) the final grade will be reduced 1% after the second tardiness and for each subsequent tardy.
- Leaving more than 15 minutes early without prior approval by the instructor will result in tardiness.
- Any absences over six may result in dismissal from the class.
- Three NO CALL/NO SHOW absences may result in immediate dismissal from the class.
- Individual instructors may require more stringent attendance requirements. Please read the appropriate course outlines.

## Other Classroom Policies and Expectations

Face-to-Face - Students are expected to attend and participate in class regularly. Any student missing more than 10% of the consecutive class time, (For example, in a regular 15-week class that meets twice a week, this equates to the student missing 3 consecutive classes) without consultation with the instructor may be considered as having abandoned the course.

Online - Students are expected to participate regularly and submit all course assignments, based on the course guide definition. A student who does not submit any assignments during a consecutive 10% of the course (1.5 weeks of a 15 week semester) without consulting the instructor, may be considered as having abandoned the course. Logging in does not meet the attendance standard.

Competency-Based Education Classes – Students are expected to have regular and substantive interactions with their instructor and to actively work on course content. A student who has not submitted coursework, nor had substantive interactions with the instructor over a consecutive 10% of the term, without the instructor’s prior approval, will be considered to have abandoned the competency progression. The last date of attendance will be recorded as the last date that coursework was submitted or that the student met with the instructor. For

on-line learners, logging in does not meet the attendance standard.

Cell Phones: All cell phones are to remain OFF or on the vibrate mode during class times, AND PUT AWAY. If you are expecting a phone call during class time you will need to inform the instructor before the class starts. This is a disruption to the class period and to your fellow students. Cell phones are NEVER to be answered in the classroom during class time and no texting, viewing Facebook, etc. during class time.

Use of electronic recording devices during classroom time: You must receive permission from the instructor to use electronic recording devices, the use of tape recorders and other recording devices will be at the instructor’s discretion. Any information gleaned from class content is not to be posted on any social media website or other internet sources. Class information is intended for use by respiratory therapy students only.

Homework: Homework must be completed to receive credit. No homework = No Credit. Homework that is NOT received on the day it is due will receive a zero. NO EXCEPTIONS!!

Homework will be returned in a timely manner. Quiz/Exams will be returned in a timely manner.

Student Responsibilities: It is the student’s responsibility to be prepared for each and every class session. Read the assigned chapters! You may be quizzed at the start of each class meeting on the assigned reading. Bring the required textbooks to class every day.

Please come to class prepared and ready to learn. Readiness to learn means that you will come to class with questions and insights and be prepared to discuss the relevance and application of course materials. Read the assigned homework material and complete the assignments before class. This includes being actively engaged in group discussions and group activities.

Canvas Participation Expectations

[Let students know how often you expect them to log into Canvas.]

### Instructor Response Time

[Let students know what your typical response time is for phone calls and email and how long it typically takes to return work and enter grades in Canvas.]

### Course Time Commitment

[Let students know how much time they should expect to spend each week on this course. The standard is 6-9 hours outside of class for a 3-credit face-to-face course and 9-12 hours per week for an online course.]

## Other Classroom Policies and Expectations

Each student is personally accountable for all respiratory therapy program student responsibilities outlined in the SJC Respiratory Therapy Student Handbook, the SJC Student Handbook, the SJC Respiratory Therapy Student Clinical Practicum Guide as those outlined in the individual course guidelines.

Because each course builds on your foundation for future employment as a respiratory care practitioner, we expect professional behavior and attendance during all classroom sessions. The health care field has serious responsibilities and the need for the highest level of competence, integrity, professionalism, compassion, empathy, and respect in a healthcare provider. For the student to be successful in this course, please review the following guidelines.

For the WEEKLY Homework Assignment, please review the following details:

1. Review Chapters and complete the weekly assignment BEFORE you come to class. It is the student's responsibility to be prepared for every class session. Turn in the weekly homework assignment as directed in this online forum. To receive credit for completing your homework assignment, you must turn them in. You are responsible for turning in assignments on time.
2. Read the assigned chapters and any supplemental reading material provided. Each assignment is crucial to the student's performance and comprehension of course materials.
3. You may be quizzed at the start of each class meeting on the assigned reading, PowerPoint, or informational resources provided in the week's module.
4. PLEASE bring the required textbooks to class every day.
5. Please come to class prepared and ready to learn. Readiness to learn means that you will come to class with questions and insights and be prepared to discuss the relevance and application of course materials. This includes being actively engaged in group discussions and group activities.
6. ALL homework assignments must be completed to pass this course. This is not a course where you can skip an assignment because you are busy or don't feel like doing the assignment. Therefore if you miss a deadline, you will earn a "0" for the assignment, AND you will still be required to submit the assignment. If you have

any assignments that are incomplete at the end of the semester, you will receive an "F" in the course.

7. If the student misses more than one homework assignment, the homework grade will be reduced by 1% for each missed or late assignment.
8. If NO assignment is turned in by the assignment deadline, you will receive a ZERO.
9. NO LATE HOMEWORK ASSIGNMENTS will be accepted for credit unless you have made PRIOR arrangements with your instructor.
10. If you are absent from class, you will receive a ZERO for the assignments that are due and any exams and/or quizzes assigned on the day of your absence, unless you have made PRIOR arrangements with your instructor.
11. The student is responsible for making arrangements for any make-up work, quizzes, and/or tests. In the case of an emergency, the student must return to the next class with an official note to explain the incident.
12. There will be competency check-offs on the procedures being reviewed in the course. The student must perform the procedures before the instructor with No Critical Errors Noted to pass the course satisfactorily.
13. Be aware that any student whose actions interfere with regular classroom activities or clinical could be subject to suspension or expulsion from the program. Any sign of rejecting, rude, disrespectful, derogatory, judgmental behaviors towards clients, classmates, agency, staff, and/or faculty is not tolerated and will be subject to suspension or expulsion.
14. The student must pass the midterm exam and the final exam with a minimum score of 75 % to pass the course. If the midterm or final exam grade is below the minimum of 75%, you will receive a grade of "D" or "F" in the course as determined by your instructor.

\*\*\*\*Amendments and changes to the course guide are possible and may be altered if circumstances warrant.\*\*\*\*

## Canvas Participation and Expectations

Students are expected to review this canvas course 2 to 3 times a week. Also, students are required to participate in the class meeting and classroom activities. If you have any questions about the taught material, please contact the instructor or arrange a meeting with the instructor to discuss the questions.

## Instructor Response Time

Please allow up to 24 to 48 hours for response time.

## Course Time Commitment



Students will need to read the chapters before attending class, which will allow the course to proceed smoothly. These will require students to read at least 2 hours or more of reading per week, plus 2 to 3 hours to be dedicated to studying, reviewing, and homework for this course. Students are expected to review this canvas course 2 to 3 times a week.

## Grading

Final grades are calculated based on the following...

A = 93 % or higher

B = 83%-93%

C = 75%-83%

F = 74% or below.

Category	Weight
Quizzes	15
Midterm	30
Homework	20
Final Exam	30
Attendance	5
Total	100

Note: The student must pass the midterm exam and the final exam with a minimum score of 75 % to pass the course. If the midterm or final exam grade is below the minimum of 75%, you will receive a grade of "D" or "F" in the course as determined by your instructor.

## Key Dates to Remember

[Full Academic Calendar](#)

## Course Schedule

Mondays from 1 pm to 5 pm (Labs times will be 3p-5p)

## College Policies

The following information also applies to your work in this class. If you have special needs for campus emergency situations, please inform me immediately.

### **1. Academic Accommodations - American with Disabilities Act (ADA)**

If you believe you need academic accommodations due to physical or learning disabilities, you are encouraged to inform them as soon as possible. The coordinator can work with you in verifying your disabilities and developing accommodation strategies. Please go to [Disability Services Office](#), click the button for "Request for Services" and complete all the steps.

You can also contact the college's disability coordinator in the Advising/Counseling Center at 566-3271 or [disabilityservices@sanjuancollege.edu](mailto:disabilityservices@sanjuancollege.edu). More information is available on the website listed above.

### **2. The Family Educational Rights and Privacy Act (FERPA)**

Your personal information and grade are confidential. Aside from routine reporting to the college required for this course, I will not share such information with anyone unless I have your permission.

### **3. Academic Honesty Rules**

San Juan College expects all students to adhere to the [Academic Honesty Rules](#) as posted online. These are the official guidelines for all classes at San Juan College (July 2006).

### **4. Student Conduct Statement**

College is preparation for professional opportunities, and professional conduct is expected in courses, including online classes, as well as any written communications, and interactions with members of the college community. As part of our learning community, students are expected to interact and communicate in a mature, respectful, thoughtful, and supportive manner. Students who demonstrate disrespectful, hostile, belittling, bullying or other disruptive behavior will be subject to potential consequences and possible dismissal from the college. The college will take appropriate action when students demonstrate threatening behavior (to others or self). Students should refer to the Code of Conduct in the Student Handbook for additional information.

### **5. Student Safety**

Keeping students safe is a priority, and part of that is ensuring that we have the ability to communicate emergency messages – whether for school closures due to weather or for more or urgent situations. Rave is San Juan College's emergency messaging system. Through your SJC student email, you will automatically receive email messages, however, it is also vital that you receive text messages. In order to receive the messages, you must register in a simple process with [Rave](#). When registering, please make sure that your mobile status is "confirmed."

The Department of Public Safety is available 24 hours per day. In an emergency, they can be accessed by calling 215-3091 or 566-3333.

In the event of an emergency, a Rave message will be sent, and depending on the situation, you will be instructed to do one of the following:

- Evacuate the building
- Shelter in place (Campus doors are locked, and operations continue as normal. During this situation, no one other than law enforcement is allowed in or out of the campus.)
- Lockdown (Campus doors are locked. All operations cease, and you should take cover in your immediate area. No one other than law enforcement is allowed in or out of the campus.)

## **6. Non-Discrimination, Sexual Harassment, and Retaliation.**

San Juan College does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, genetic, veteran's status, or on the basis of any other category protected under federal, state and local laws. If you have experienced sexual harassment, sexual assault, or any other form of protected class discrimination, we encourage you to make a report. If you report to a faculty member, she/he/they are obligated by policy to share knowledge, notice, and/or reports of harassment, discrimination, and/or retaliation with the Title IX Coordinator. These disclosures include but are not limited to reports of sexual assault, dating/domestic violence, and stalking. You may also make a confidential report to a SJC Counselor. Please refer to San Juan College's [Title IX](#) site for further details.

San Juan College's Title IX Coordinator is Stacey Allen, Assistant Director of Human Resources/Equity, Diversity, and Inclusion Officer. The office is located at the Educational Services Center Building, 2nd Floor, Human Resources, Room 4243 at (505) 566-3515 or [allens@sanjuancollege.edu](mailto:allens@sanjuancollege.edu).

## **7. Drop for Non-Attendance and/or Non-Participation**

### **Class Attendance and Participation Expectation:**

Face-to-Face -- Students are expected to attend and participate in class regularly. Any student missing more than 10% of consecutive class time, (For example, in a regular 15-week class that meets twice a week, this equates to the student missing 3 consecutive classes) without consultation with the instructor may be considered as having abandoned the course.

On-line -- Students are expected to participate regularly and submit all course assignments, based on the course guide definition. A student who does not submit any assignments during a consecutive 10% of the course (1.5 weeks of a 15-week

semester) without consulting the instructor, may be considered as having abandoned the course. Logging in does not meet the attendance standard.

Competency-Based Education Classes -- Students are expected to have regular and substantive interactions with their instructor and to actively work on course content. A student who has not submitted coursework, nor had substantive interactions with the instructor over a consecutive 10% of the term, without the instructor's prior approval, will be considered to have abandoned the competency progression. Last date of attendance will be recorded as the last date that coursework was submitted or that the student met with the instructor. For on-line learners, logging in does not meet the attendance standard.

#### **8. Failure to Meet Class Participation Expectation:**

Students who fail to meet participation expectations will have their last date of attendance recorded. This date will be used to recalculate any financial aid received/veteran's benefits received, and the student may be required to repay the institution/government. If the student does not drop the course, an 'X' grade will be recorded. An 'X' grade impacts the grade point average the same as an 'F'.

#### **9. Grading Policies**

##### **Incomplete: Incomplete Grade Assignment** ([Incomplete Grades Information](#))

The grade of I (Incomplete) is given for passing work that could not be completed during the semester because of circumstances beyond the student's control. Ordinarily, the assignment of an I is given by the course instructor at the time final grades are due

In no case is an I grade to be used to avoid assignment of D or F grades for marginal or failing work or to require a student to enroll in the class the next semester because work was not completed on time. Circumstances warranting the issuance of an I grade must be beyond the student's control and must be documented on the appropriate form prior to approval.

I grades can be removed only during the subsequent 16 weeks from the end of term, or within the time limit set by the instructor. Removal of an I is accomplished by completing the work in a manner acceptable to the instructor. Re-enrollment in the course under the repeat option does not remove the prior grade of I. Students should not re-enroll for the course. An I not made up within 16 weeks or within the time limit set by the instructor will change to an F grade thereafter and cannot be

changed by work completion.

## 10. **Grade Appeals**

The policy for grade appeals is in the Academic Catalog. ([Grade Appeal Policy](#))

## Student Handbook

The Student Handbook provides information on Student support, student organizations, and San Juan College policies.


[Student Handbook](#)

## Program Handbook

SJC RT STUDENT HANDBOOK-3

SJC Respiratory Therapy Program Student Handbook & Policies

Welcome to the San Juan College Respiratory Therapy Program!

 Respiratory Therapy  
Logo

The RT Program Student Handbook provides the student with program information, instructor contact information, curriculum design, attendance policy, and student responsibilities. It is the student's responsibility to become familiar with the handbook and to follow the guidelines contained in it. The student will receive a printed copy of the handbook at the beginning of the first semester in the program and will sign an acknowledgment agreement. The agreement is as follows:

ACKNOWLEDGMENT OF 2018-2019 PROGRAM HANDBOOK

I \_\_\_\_\_ HAVE READ AND AGREE TO ADHERE TO THE POLICIES AND PROCEDURES SET FORTH IN THE RESPIRATORY THERAPY STUDENT HANDBOOK and information provided on this canvas page. THE RESPIRATORY THERAPY STUDENT HANDBOOK IS A DYNAMIC DOCUMENT AND IS SUBJECT TO CHANGE AS POLICIES EVOLVE. STUDENTS ARE RESPONSIBLE FOR KNOWING THE CURRENT CONTENTS OF THE RESPIRATORY THERAPY STUDENT HANDBOOK AND ADHERING TO ITS POLICIES. IF AN ADDENDUM IS NECESSARY, STUDENTS ARE RESPONSIBLE FOR ANY ADDITIONAL POLICY CHANGES.

Also, FOR LEARNING PURPOSES STUDENTS WILL BE VIDEO-TAPED WHEN PARTICIPATING IN SIMULATION OR SKILLS TESTING. IMAGES AND VIDEOTAPE TAKEN WHILE ON SITE DURING INSTRUCTION ARE THE PROPERTY OF SJC RT PROGRAM AND MAY BE VIEWED BY COMMUNITY PARTNERS FOR MARKETING PURPOSES. MY SIGNATURE INDICATES THAT I HAVE READ THE HANDBOOK AND I AGREE TO BE VIDEOTAPED.

IN EXCHANGE FOR THE EDUCATIONAL OPPORTUNITIES PROVIDED TO ME BY THE CLINICAL ROTATIONS, I AGREE TO COMPLY WITH ALL STATE, LOCAL, AND FEDERAL REQUIREMENTS GOVERNING THE PRIVACY OF MEDICAL INFORMATION. THOSE PRIVACY REQUIREMENTS HAVE BEEN EXPLAINED TO ME, AND I HAVE HAD TRAINING IN COMPLYING WITH THESE REQUIREMENTS. I AGREE TO UPHOLD ALL HIPAA AND OTHER PRIVACY REQUIREMENTS DURING MY CLINICAL ROTATIONS.

I UNDERSTAND THAT I AM BOUND TO COMPLY WITH ALL PRIVACY REQUIREMENTS WHEN I AM NOT IN A CLINICAL ROTATION, INCLUDING IN MY CONVERSATIONS WITH FAMILY, FRIENDS, AND PEERS. I WILL BE HELD ACCOUNTABLE FOR MAINTAINING THE PRIVACY OF ANY INFORMATION I OBTAIN, SEE, OR AM GIVEN DURING MY CLINICAL ROTATIONS. TO UPHOLD THE PRIVACY OF SUCH INFORMATION, I AGREE NOT TO POST OR DISCUSS ANY CLINICAL EXPERIENCE OR INFORMATION REGARDING MY EXPERIENCE WITH THE CLINICAL AGENCY, ITS STAFF, OR ITS CLIENTS/PATIENTS ON ANY INTERNET SOCIAL MEDIA (FACEBOOK, TWITTER, EMAILS, MYSPACE, AND ANY OTHERS NOT MENTIONED). I UNDERSTAND THAT ADMINISTRATION PERIODICALLY SEARCHES THE INTERNET FOR BREACHES IN ITS PRIVACY POLICIES. I WILL BE PROHIBITED FROM RETURNING TO THE CLINICAL SITE IF I VIOLATE ANY PRIVACY REQUIREMENT IN ANY REGARD. SUCH VIOLATION MAY ALSO RESULT IN A DELAY IN COMPLETING MY DEGREE REQUIREMENTS OR IN FURTHER DISCIPLINARY ACTION AGAINST ME BY SAN JUAN COLLEGE.

The RT Student Handbook will be accessible to the student in each RT course for quick reference @ <https://canvas.sanjuacollege.edu/courses/62515/files/4192746/download?wrap=1>

The student will be informed of any changes to the handbook by the program director and/or the clinical coordinator. The student will be given a printed copy of policy changes before the effective date. The student will sign an acknowledgment form stating receipt of the new policy and agree to adhere to the changes in program policy.

\*\*\*\* If you have any questions regarding the policies in the handbook before signing this form, please make an appointment with the Respiratory Therapy Program Director.