

McLennan
C O M M U N I T Y
COLLEGE

WACO, TEXAS

COURSE SYLLABUS

AND

INSTRUCTOR PLAN

RESPIRATORY HOME CARE AND REHABILITATION

RSPT - 1241 - 01

AMBER HENDRICKSON

NOTE: This is a 16-week course.

COVID 19 Notice:

McLennan Community College is committed to providing you with every resource you need to reach your academic goals including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website at <https://www.mclennan.edu/crisis-management/coronavirus-updates/index.html> on any changes to these guidelines.

AN EQUAL OPPORTUNITY INSTITUTION

SPRING SEMSTER 2022

RESPIRATORY HOME CARE AND REHABILITATION

RSPT 1241_01

Course Description:

A study of respiratory home care/rehabilitation equipment, procedures and patient education.

Prerequisites and/or Corequisites:

Prerequisite: RSPT 2414

Course Notes and Instructor Recommendations:

Instructor Information:

Instructor Name: Amber Hendrickson

MCC Email: ahendrickson@mclennan.edu

Office Phone Number: 254-299-8369

Office Location: HP #131

Office/Teacher Conference Hours:

- Tuesday: 8:00 -9:15 AM
- Thursday: 8:00 -9:15 AM
- Friday: 9:00-11:30 AM

Required Text & Materials:

1. Title: Mosby's Respiratory Care Equipment; Authors: J.M. Cairo; Edition: 10th, 2018; Publisher: Elsevier Mosby; ISBN 978- 0-323-41636-8
2. Title: Egan's Fundamentals of Respiratory Care, Authors: Scanlan, Stoller and Heuer, Edition: 11th, 2017; Publisher: Elsevier; ISBN – 978-0-323-34136-3

MCC Bookstore Website: <http://www.mclennan.edu/bookstore/>

Methods of Teaching and Learning:

Instructional methods include: lectures, reading assignments, quizzes, exams, and in class problem-based learning activities.

To achieve the course goals, the student must read the weekly textbook assignments, listen to the on-line lectures, and ***answer and master the study questions (objectives) that support the course goals.*** The student must come to class prepared to participate in activities designed to apply the information learned from the on-line lectures and reading assignments.

Course Objectives and/or Competencies:

Respiratory Care in Alternate Sites

- a. Recent Developments and Trends
- b. Definitions and Goals
- c. Standards and Regulations

Discharge planning:

- a. Components of a discharge plan.
- b. Patient evaluation
- c. Site Evaluation

Patient education and Health promotion

- a. How adults and children learn.
- b. Methods that are used to evaluate patient education.
- c. The importance of health education.
- d. The settings which are appropriate for health promotion activities.
- e. Disease management and 5 measures of an effective disease management plan (e.g., asthma, COPD and sleep disorders).

Oxygen therapy in Alternate Settings

- a. Describe the rationale for oxygen therapy in the home or extended care facility.
- b. Regarding oxygen concentrators, describe the capabilities and limitations, maintenance, correcting malfunctions, and set-up.
- c. Describe the capabilities and limitations of the oxygen conserving devices, including the cannulas and “pulse-dose” devices.
- d. Describe how to correct malfunctions and care for the transtracheal oxygen catheter.
- e. Regarding the liquid oxygen supply system:
 - Given the liter flow and pounds of liquid available, calculate the duration of the oxygen before it is depleted, using a portable system.
 - Describe the safe use.

Apnea monitoring

- a. Describe the rationale for the apnea monitor in the home.
- b. Describe the set-up of the apnea monitor in the home.
- c. Describe the education and training of the parents or caregivers.

PULMONARY REHABILITATION

Regarding exercise:

- a. Identify 3 goals of a pulmonary rehabilitation program.
- b. Identify 5 potential measurable benefits of a pulmonary rehabilitation program.
- c. Identify three factors that directly affect the quality of life of the patient and family.

- d. Identify 6 factors that must be included in the development of a successful pulmonary rehabilitation program.
- e. Identify 3 factors that will increase the patient's physical conditioning and exercise tolerance.
 - Describe 3 accepted benefits from exercise reconditioning.
 - Identify 4 potential benefits from exercise reconditioning.
 - Identify 6 unlikely or unknown benefits from exercise reconditioning.
- f. Explain how the psychosocial and physical assessment affects the determination of the patient's goals in a pulmonary rehabilitation program.
- g. Identify 6 types of patients that may benefit from a pulmonary rehabilitation program.
- h. Describe 3 conditions that will require modification of the pulmonary rehabilitation program
- i. Describe the assessment of Activities of Daily Living (ADL).
- j. Identify the expected metabolic equivalents (METs) (exercise tolerance) to be achieved by a patient with COPD.
- k. Describe the goals that are common to pulmonary rehabilitation programs.
- l. Describe the objectives of a pulmonary rehabilitation program that are based on the patient's needs.
- m. Describe the content of a typical pulmonary rehabilitation program.
- n. Describe a typical physical reconditioning program.
- o. Describe the use of devices such as the P-flex® or targeted threshold resistor inspiratory muscle training devices.
- p. Describe how a graded exercise program may be modified for a patient to achieve a degree of success.
- q. Identify 4 measurements that are typically documented during a physical reconditioning exercise session.
- r. Describe the role of the group facilitator of a pulmonary rehabilitation program.
- s. Identify changes that may be evaluated to determine program outcomes:
 - 6 changes in exercise tolerance.
 - 4 changes in symptoms.
 - 8 other changes.

Regarding smoking cessation:

- a. Describe the addictive characteristics of cigarette smoking-tobacco dependence.
- b. Describe the symptoms of tobacco withdrawal.
- c. Describe the various methods used to treat addiction to smoking/nicotine.
 - The four classes of nicotine agonists.
 - The dopaminergic/noradrenergic reuptake inhibitor (Zyban®).
 - Combination treatment.
- d. Describe smoking cessation as a treatment plan.
- e. Identify the factors that increase the risk for relapse.

Regarding nutrition:

-
-
- a. Explain why COPD patients are often malnourished.
 - b. Identify the laboratory indicators for the assessment of the nutritional status of the patient.
 - ☐ Height-weight index
 - ☐ Anthropometry
 - ☐ Clinical lab. tests
 - ☒ Serum visceral proteins
 - ☒ Creatinine-height index
 - ☒ Nitrogen balance
 - ☒ Total caloric requirements
 - ☒ Harris-Benedict Equation. Given the formula, calculate the total body energy requirements for a patient.
 - c. Identify the appropriate enteral nutritional requirements for a COPD patient.
 - d.. Define parenteral feeding.

MECHANICAL VENTILATION – HOME (Alternative Settings) –

- a. AARC CPG Long-Term Invasive Mechanical Ventilation in the Home
- b. Patient Selection
- c. Standards
- d. Planning and Caregiver education
- e. Invasive PPV vs. Noninvasive Ventilatory Support (NIPPV)
- f. Initiation of PPV (Volume and Pressure)

**PROVIDE RESPIRATORY CARE IN HIGH-RISK SITUATIONS – LAND/AIR
PATIENT TRANSPORT BETWEEN HOSPITALS**

- a. Describe the purpose and factors to consider transporting a critically ill or injured patient
- b. During transport of a critically ill or injured patient:
 - ☐ Identify 4 patient goals
 - ☐ Identify 6 problems to anticipate
 - ☐ Identify 2 types of guidelines that are used to guide the decision to transport and serve as a checklist for the transport team.
 - ☐ Identify 2 vital components to a successful transport.
- c. Identify 3 common attributes as well as 2 desirable features of a transport ventilator.
- d. Describe the power source for a transport ventilator.
- e. Describe the effects of temperature extremes on the transport ventilator.

RESPIRATORY HOME CARE AND REHABILITATION

RSPT 1241_01

DETERMINATION OF BRAIN DEATH IN THE ADULT

- a. Describe the purpose of determining brain death.
- b. Describe the apnea test
- c. Identify brain death criteria

Course Outline or Schedule:

DATE	TOPIC
1/11	Review the course objectives and syllabus
1/13	Overview – Home Care (You may use your notes) Egan., Ch. 57, Respiratory Care in Alternate Settings
1/18	Discharge Planning Egan., Ch. 57, Respiratory Care in Alternate Settings
1/20	<ul style="list-style-type: none">• Patient Education• Health Education• Health Promotion and Disease Prevention Egan, Ch. 55 Patient Education and Health Promotion
1/25	Disease Management Egan, Ch. 55 Patient Education and Health Promotion
1/27	Oxygen Therapy in Alternate Settings - Compressed Gas Cylinders AARC CPG Egan, Ch. 57, Respiratory Care in Alternate Settings
2/01	Oxygen Therapy in Alternate Settings - Liquid Oxygen Systems Egan, Ch. 57, Respiratory Care in Alternate Settings

RESPIRATORY HOME CARE AND REHABILITATION

RSPT 1241_01

2/03	Oxygen Therapy in Alternate Settings - Oxygen Concentrators Egan, Ch. 57, Respiratory Care in Alternate Settings
2/08	Oxygen Therapy In Alternate Settings – Troubleshooting Egan, Ch. 57, Respiratory Care in Alternate Settings
2/10	Oxygen Therapy In Alternate Settings – Oxygen Conserving Methods <ul style="list-style-type: none"> • Demand Flow • Reservoir Systems Egan, Ch. 57, Respiratory Care in Alternate Settings Mosby's– pp. 89 – 91
2/15	Oxygen Therapy In Alternate Settings – Oxygen Conserving Methods <ul style="list-style-type: none"> • Transtracheal Oxygen Therapy SCOOP video Egan, Ch. 57, Respiratory Care in Alternate Settings Mosby's Equipment Book – pp. 94 - 95
2/17	Ventilatory Support in Alternate Settings <ul style="list-style-type: none"> • AARC CPG • General Principles for Ventilatory Support in the Alternate Settings Egan, Ch. 57, Respiratory Care in Alternate Settings Mosby's, Ch. 15 – Transport, Home Care and Noninvasive Ventilators
2/22	Ventilatory Support in Alternate Settings <ul style="list-style-type: none"> • Non Invasive and Invasive Ventilatory Support • Other modes of Post-Acute Respiratory Care in Alternate Settings, Including Palliative Care • Equipment Disinfection and Maintenance Egan, Ch. 57, Respiratory Care in Alternate Settings Mosby's, Ch. 15 Transport, Home Care and Noninvasive Ventilators

RESPIRATORY HOME CARE AND REHABILITATION

RSPT 1241_01

2/24	Apnea-Bradycardia Monitoring Perretta, pp.112-118
3/01	Exam 1- Home Care
3/03	Overview – Pulmonary Rehabilitation <ul style="list-style-type: none"> • Definitions and Goals • Historical perspective • Physical Reconditioning • Psychosocial Support Egan, Ch. 56-Cardiopulmonary Rehabilitation
3/08-3/10	Spring Break
3/15	Overview – Pulmonary Rehabilitation <ul style="list-style-type: none"> • Goals and Objectives • Patient Evaluation and Selection • Program Design Egan, Ch. 56-Cardiopulmonary Rehabilitation
3/17	Overview – Pulmonary Rehabilitation <ul style="list-style-type: none"> • Program Implementation • Costs/ Reimbursement Qualifications • Program Results • Hazards Egan, Ch. 56-Cardiopulmonary Rehabilitation
3/22	Six Minute Walk Test Oxygen Titration with Exercise Scholarly Articles
3/24	Smoking Cessation – Tobacco Dependence and E-Cigarettes
3/29	Smoking Cessation – <ul style="list-style-type: none"> • Prevention • Key to Treatment of COPD • Controller medications • Nicotine replacement therapy – NRT

RESPIRATORY HOME CARE AND REHABILITATION

RSPT 1241_01

	<ul style="list-style-type: none"> • Other medications for smoking cessation • Smoking Cessation Plan
3/31	Lung Cancer Egan, Ch. 32 Lung Cancer
4/05	Nutrition and COPD Egan, Ch. 23 Nutrition and COPD <ul style="list-style-type: none"> • Nutrition Assessment <ul style="list-style-type: none"> ◆ General principles ◆ Anthropometrics ◆ Biochemical Indicators ◆ Pulmonary Function, Clinical Indicators • Macronutrients and Energy requirements <ul style="list-style-type: none"> ◆ General principles ◆ Estimating Energy Requirements ◆ Indirect calorimetry
4/07	Nutrition and COPD Egan, Ch. 23 Nutrition and COPD <ul style="list-style-type: none"> • General Aspects of Nutritional Support <ul style="list-style-type: none"> ◆ Malnutrition ◆ Providing the Appropriate Mix of Substrates ◆ Routes of “Feeding” • Nutritional Support in Specific Medical Problems • General guidelines
4/12	Exam 2 – Pulmonary Rehabilitation
4/14	Transport of a Critically Ill or Injured Patient – Part 1 and 2
4/19	Ethics and End of Life Egan, Ch. 58 Ethics and End of Life
4/21	Determination of Brain Death in the Adult American Academy of Neurology

RESPIRATORY HOME CARE AND REHABILITATION

RSPT 1241_01

4/26	Big Sim 1:00 PM-5:00 PM
4/28	Final Exam Review
5/03	Comprehensive Final Exam 1300-1500

Course Grading Information:

The grading will be based on a percentage system. Each examination will be worth a total of 100%. The grade the student will receive on any examination will be the percent correct the student attains on that test. The scale will be as follows:

90% - 100%	=	A
80% - 89%	=	B
75% - 79%	=	C
60% - 74%	=	D
59% and below	=	F

At the end of the semester the average percentage grade that the student obtained in the semester will be the student's grade for the course. (**Example:** a course grade of 88.5 = 89, is a B. A course grade of 89.4 = 89 is also a B. A course grade of 89.5 is an A)

Grades will be posted on Brightspace

The student must obtain at least a grade of C or better in all courses within the Respiratory Care curriculum, before the student may successfully complete the program. If a student makes less than 80% on an exam or consistently less than 80% on IRA's he/she must make an appointment to see me.

Grading:

Daily Grades: Individual Readiness Assessment – 20%

Team Readiness Assessment – 10%

Exams = 70%

- An **Individual Readiness Assessment (IRA)** quiz is administered at the beginning of each class. This quiz covers information presented in the reading assignment and the on-line lectures. The quiz is a closed-book, secure exam. IRA scores are a component of the Daily Grades.
- Students will submit a **Team Readiness Assessment (TRA)** during each class. Team members will work on this quiz jointly and submit the completed quiz for the entire group.

Full, partial, or no credit will be earned. Each team member will receive the same TRA quiz grade. TRA scores are a component of the Daily Grades.

- The lowest daily grade will be exempted. After this one exemption, missed quizzes or leaving the classroom after the quiz will earn a zero for a daily grade. **No exceptions.**

Remediation Plan – Academic Courses

When a student is struggling in the classroom, the faculty will respond, proactively. Students that consistently score less than 80% on their daily F2F quizzes or score less than 80% on any exam will be required to complete an activity of remediation assigned by the instructor of the course immediately following. The activity requirements will vary as they will be customized according to factors such as the students' needs, the purpose of the assignment, its content, etc., and the instructor will maintain all records of completion. Students that fail to complete the required remediation activities will receive an "Incomplete" ("I") grade for the course, regardless of overall passing grade point average, until all work is submitted. An "Incomplete" ("I") in any course must be resolved prior to the start of the following semester or the resulting grade will convert to an "F" and the student will not pass the course.

W - WITHDRAWAL - This grade is given for an instructor- or student-initiated course withdrawal through the 60 percent point in the semester or term. After the 60 percent point, an instructor may authorize a course withdrawal and assign either a W, if passing work was being accomplished, or an F if the student was failing the course. In extenuating circumstances, the instructor may assign a W to a student who is not passing through the last regular class day of a semester or term.

I - INCOMPLETE - This grade is given when a course is incomplete because of a student's absence caused by illness or other reasons acceptable to the instructor. To be eligible for this grade, the student must have essentially completed the course. The work remaining should be of such a nature as to not require class attendance. If the work is not made up within the following long semester, an Incomplete (I) will be changed to an F, and the course must be repeated if credit is to be given.

Late Work, Attendance, and Make Up Work Policies:

Make-up work:

Students will be held accountable for course materials in the determination of course grades. If a student misses an exam, the student must **notify the instructor**, provide proof of illness, or illness of a family member for whom the student is a caretaker (e.g., single parent), death in the family or approved college activity, or observance of a religious holiday.

Exams will be made up by arrangement with the instructor **within one week** following the date the exam was administered. **If a student fails to follow these instructions for making up an exam, the student will receive a zero for that exam.**

RESPIRATORY HOME CARE AND REHABILITATION

RSPT 1241_01

Exams will be made up in the MCC testing center within one week following the date the exam was administered. If a student fails to follow these instructions for making up an exam, the student will receive a zero for that exam.

After notifying the instructor of an absence and providing a date for making up the exam, the student must make an appointment in the Testing Center using the **Blast Software** to register for the make-up exam.

The MCC Testing Center is located on the 2nd floor of the Student Services Center. Need help or have questions? Contact the Testing Center at 254-299-8453 or testingcenter@mclennan.edu

Student Behavioral Expectations or Conduct Policy:

Students will act respectfully to other students and instructor and arrive to class on time.

All cellular phones, tablets, laptops, and smart devices must be turned OFF at the beginning of class and placed in a designated area set by the instructor. This also includes smart watches, Fitbits, etc.

This is NOT optional. If you choose to keep your device in a book bag or purse, you **MUST** place this book bag or purse in the instructor's designated area until all quizzes and/or Exams are completed.

If a student is caught with any of the above devices during **ANY** portion of the **daily quiz or Exam**, the student will immediately receive a ZERO on the quiz or Exam, be referred to the Vice President of Student Services for disciplinary action and be subject to suspension. **NO EXCEPTIONS.**

Under extraordinary circumstances and with permission, the student may receive emergency phone calls if placed on vibrate and placed on the instructor's desk during daily quizzes or Exams. Responding to emergency phone calls must be conducted outside the classroom. No personal phone calls (non-emergency) will be allowed during class.

Students may use lap top computers and tablets to access class work during class, after the daily quizzes. **Accessing other material (i.e. texting, social media, other class material, and web sites) during class WILL RESULT in a zero on the exam or quiz and the student will be asked to leave the classroom. NO EXCEPTIONS.** Students must stay in seats during quizzes and exams. If the student must leave the classroom for any reason during quizzes and exams they should take their belongings with them and not return for the rest of class.

Students who cheat or plagiarize will receive a zero for the assignment and are subject to suspension.

- The term “cheating” includes, but is not limited to:
 - (1) use of any unauthorized assistance in taking quizzes, tests or examinations;
 - (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the MCC faculty or staff.
- The term “plagiarism” includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Collaboration in the completion of course work is prohibited unless explicitly permitted by the instructor. Where such collaboration is permitted by the instructor, students must acknowledge any collaboration and its extent in all submitted work.

[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)

(<https://www.mclennan.edu/highlander-guide/policies.html>)

Click on the link above for the college policies on attendance and absences.

McLennan

C O M M U N I T Y

COLLEGE

ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu

254-299-8122

Room 319, Student Services Center

Title IX:

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at titleix@mclennan.edu or by calling Dr. Drew Canham (Chief of Staff for Diversity, Equity & Inclusion/Title IX) at (254) 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>.

Go to McLennan's Title IX webpage at www.mclennan.edu/titleix/. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Students may visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a Success Coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html> to find out more about the emergency grant. The application can be found at https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf.

MCC Academic Integrity Statement:

Go to www.mclennan.edu/academic-integrity for information about academic integrity, dishonesty, and cheating.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-and-Staff-Commons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.