



MIDWESTERN STATE UNIVERSITY

Course Syllabus: Adult Critical Care Procedures and Equipment  
Robert D. & Carol Gunn College of Health Sciences and Human Services  
RESP 3552 Section 201, 21A, 21B, 21C, 21D  
Spring 2023 January 17- May 12

Contact Information

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Additional Course Instructors

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Course Description

Combined lecture and laboratory class focusing on techniques and procedures used to support the adult patient in respiratory failure. Emphasis is placed on correct set-up and application of procedures and equipment. Topics include - full and partial ventilatory support modes, patient-ventilator system checks, triggering, flow patterns, expired gas monitoring, and diagnostic and monitoring uses of the ECG.

Course Objectives

1. Identify the typical parameters documented during mechanical ventilation
2. Correctly initiate mechanical ventilation on a simulator to include all appropriate settings
3. State the indications for mechanical ventilation
4. Differentiate between volume and pressure cycled ventilation
5. List the criteria for the implementation of mechanical ventilation
6. Differentiate modes of ventilation: Assist control, IMV, Control
7. Describe common complications of mechanical ventilation
8. Differentiate between PEEP and CPAP – hazards and benefits
9. Perform troubleshooting on the patient/ventilator system
10. Describe the criteria used to determine a patient's ability to be weaned
11. Differentiate between various techniques and modes of ventilation used to achieve weaning

12. Analyze various wave forms to determine: Inspiration, expiration, PEEP, auto PEEP, peak and plateau pressure, spontaneous and machine breaths, and over-inflation

#### Textbook & Instructional Materials

White, G.C. (2013). Basic Clinical Lab Competencies for Respiratory Care. 5<sup>th</sup> Edition. Delmar. ISBN 978-1-4354-5365-4

18 month Subscription to Classmate Learning Resources – Place your order by:

- Accessing URL: <https://www.classmateLR.com/purchase>
- Clicking Purchase from the menu bar on the home page
- Student Access Code **ir467qv**

#### **Additional material will be provided via D2L.**

#### Weekly Meeting Pattern

Wednesday:      1:00-1:50 Lecture      CE 250  
                         2:00-5:00 Laboratory CE 250

#### Student Handbook

Refer to: [Student Handbook](#)

#### Academic Misconduct Policy & Procedures

Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct.

#### Attendance

**Class attendance and participation is essential. Daily attendance records will be kept. Each missed lab will result in a reduction in the lab attendance grade. Make-up for any time that is missed from lab is the responsibility of the student. Prior absence approval may be granted as deemed necessary by the professor.**

Students are expected to attend all meetings of the classes in which they are enrolled. In the case of a COVID absence (with proper MSU documentation), a zoom link will be granted to attend courses. All other absences will considered unexcused and a zoom link will not be granted

#### Learning Resources

Laboratory Equipment- Each student will be supplied with laboratory equipment that will be used for instruction and performing therapy. The equipment includes items such as mouthpieces, filters, small volume nebulizers, and additional items. You will need these items to practice with and to perform therapy on

fellow students (you will use the actual student's equipment when performing therapy). This equipment will be used in all of your laboratory courses. Everyone is responsible for cleaning and storage of their equipment. You will need a hand calculator, stethoscope and watch with a second hand.

Audio/Video- Additional audio and video resources will be provided throughout the semester via D2L.

#### Laboratory Practice Standards

Each student is expected to review the Clinical Skills Laboratory Practice Standards in D2L. Please adhere to the standards as they are important and consistent with the student transitioning to a professional Respiratory Therapist.

#### Grading

Course Grade - Graded assignments with their percentage of total grade. A minimum grade of 75 (C) is required in all respiratory courses. Failure to attain a minimum grade of C will prevent the student from progressing in the program.

Table 1: Grading Scale for final grade.

| Grade | Points        |
|-------|---------------|
| A     | 90 to 100%    |
| B     | 80 to 89%     |
| C     | 75 to 79%     |
| D     | 60 to 74%     |
| F     | Less than 60% |

Table 2: Percentages allocated to each assignment

| Assignments                           | Percentage |
|---------------------------------------|------------|
| Attendance                            | 5%         |
| Quizzes                               | 15%        |
| Classmate Simulations                 | 10%        |
| Midterm Laboratory Check Off          | 30%        |
| Cumulative Final Laboratory Check Off | 40%        |
| Total                                 | 100%       |

#### Missed Check Offs, Quizzes, or Other Graded Item Policy

Anything not completed and handed in on time will be subjected to a 15% per day penalty (weekends included). No exceptions!!

**There are no make-ups for quizzes.**

#### Quizzes & Semester Lab Check Offs

There will be approximately 4 quizzes. They will be taken from the reading material in the laboratory manual and information covered in the Adult Critical

Care Class. They will be given from 1:00–1:20 only. **Remember that there will be no make-up quizzes.**

For each of the chapters in the Laboratory Exercises text you will be required to perform the competencies described in each chapter. The competencies will be practiced in lab with an instructor before the student will be signed off on the competency on a formal competency assessment day. All assigned competencies must be successfully completed by the student in order to complete the course.

Students are highly encouraged to practice, practice, and practice! Success at being checked-off is directly proportional to your comfort at doing a specific task--practice makes perfect.

### Classmates Simulations

Classmates is a special program designed to help students build strong clinical skills using online Clinical Simulations and other learning tools. Classmates will also track and report the progress of each student as well as the entire class.

Classmates allows you to practice applying the concepts taught in class and lab by exposure to clinical problems improving your ability to think on your feet. These exercises will build critical-thinking and problem-solving skills. Classmate simulation scenarios will be assigned throughout the semester as needed to reinforce concepts introduced in the classroom and lab. You will be provided several practice simulations and **four** simulations will be assigned as a testing scenario and will be worth 10% of your grade.

### Midterm Check Off and Final Check Off

The midterm and final check offs will be comprehensive and performance – based. Each student must pass the midterm check off in order to return to clinical. All assigned competencies must be successfully completed by the student in order to complete the course.

### Extra Credit

Extra credit will not be available for this course.

### Important Dates

Last day for term schedule changes: January 20

Last Day to drop with a grade of "W:" March 20

Refer to: [Drops, Withdrawals & Void](#)

### Desire-to-Learn (D2L)

Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into [D2L](#) through the MSU Homepage. If you

experience difficulties, please contact the technicians listed for the program or contact your instructor.

#### Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the Schedule of Classes each semester.

#### Refund and Repayment Policy

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exist in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

#### Services for Students with Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to [Disability Support Services](#).

#### College Policies

Campus Carry Rules/Policies

Refer to: [Campus Carry Rules and Policies](#)

Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. Adult students may smoke only in the outside designated-smoking areas at each location.

Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees

are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

#### Grade Appeal Process

Update as needed. Students who wish to appeal a grade should consult the Midwestern State University [Undergraduate Catalog](#)

#### Notice

Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

## Course Schedule

|        | Date        | Content   | Text Reference | Assignments/ Quiz               |
|--------|-------------|---|----------------|---------------------------------|
| Lab 1  | January 18  | Ventilator Fair   | Pocket guides  |                                 |
| Lab 2  | January 25  | -Compliance and Resistance on Mech. Ventilated Pts.<br>-Ventilator Alarms | Ch. 25         |                                 |
| Lab 3  | February 1  | -Ventilator modes and set-up  | Ch. 25         | Quiz #1                         |
| Lab 4  | February 8  | -Flowrates/Waveforms  | Ch. 25 & 26    | Quiz #2                         |
| Lab 5  | February 15 | -Ventilator Initiation/Changes  | Ch. 25&27      | <b>Charles Fulmer</b>           |
| Lab 6  | March 29    | Midterm   |                | <b>Ovis Hill</b>                |
| Lab 7  | April 5     | Waveform Analysis   | Ch. 27         | Quiz #3<br><b>Angie Roberts</b> |
| Lab 8  | April 26    | Troubleshooting/Weaning   | Ch. 26 & 28    | Quiz #4                         |
| Lab 9  | May 3       | Final Prep/Additional Modes   |                |                                 |
| Lab 10 | May 11      | Comprehensive Final Check Off @ 9am                                       |                | <b>Problem 6</b>                |