

Course Syllabus: Neo/Pedi Procedures & Equipment College of Health Sciences and Human Services RESP 3561 Spring Semester 2025

Contact Information

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Course Description

Laboratory course focusing on techniques and procedures used to support the neonatal patient in respiratory failure. Emphasis is placed on correct set-up and application of the procedure and equipment. Topics include nasal CPAP, continuous flow IMV, mean airway pressure therapy, vital signs, chest assessment, APGAR scoring, and resuscitation of the newborn.

Course Meeting Schedule

Tuesdays: 1:00pm – 5:00pm in the Respiratory Care Lab

Course Objectives

Course objectives include: Understand gestational development and transitions at birth; understand the components and importance of a prenatal and perinatal history; be able to perform a respiratory physical exam and APGAR score; recognize special problems of infants and how they affect the respiratory system; know basic laboratory values for newborns; be able to interpret chest x-rays; understand pathogenesis, pathophysiology and treatment of common respiratory diseases of infants and children; know the indications and techniques of oxygen therapy, the indications and techniques of CPAP administration, the indications and techniques of mechanical ventilation in infants, the guidelines for infant resuscitation according to current Neonatal Resuscitation Program standards, indications and technique for infant intubation and extubation, indications and technique for infant chest physical therapy, the indications and techniques of high frequency mechanical ventilation in infants, and the pharmacology and administration of surfactants in infants; complete the American Academy of Pediatrics Neonatal Resuscitation Program (NRP).

Textbook & Instructional Materials

- 1. Neonatal Resuscitation, 8th Ed. AAP, ISBN-978-1-61002-524-9
- 2. Neonatal & Pediatric Resp. Care, 5th Ed, Walsh, ISBN-978-0-323-47947-9

Student Handbook

Refer to: <u>Student Handbook</u>

Academic Misconduct Policy & Procedures

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given).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. Research papers and projects must be original work for each course assignment. The faculty will not accept a submission that has been or is being submitted for another course. No Exceptions!

Assignment Grading

Assignments	Percentage of Total Grade
Pop Quizzes	20%
NICU ICE	10%
12 Vent Checks	10%
Competency Sign-Offs	10%
NRP MegaCode Competency	15%
Vent Competency	15%
Final Lab Competency	20%

Grading Scale

Letter Grade	Percentage Grade
Α	90-100%
В	80-89%
С	75-79%
D	70-74%
F	Less than 69%

Progression Policy

A minimum grade of 75 (C) is required in all respiratory courses. Failure to attain a minimum grade of C in these courses will prevent the student from progressing in the program. A student who fails to achieve a grade of C in any respiratory care course may repeat the course one time. Any student who fails to achieve a grade of C in any two respiratory care courses will be dismissed and not eligible for re-admission.

Pop Quizzes

There will be several pop quizzes throughout the semester. These quizzes may be given at any time and on any day during class. Quizzes are timed (max of 10 minutes). If you are late to class and a quiz has already started, you may begin working on the quiz, but will not have additional time added. In addition, missed quizzes will result in a zero and cannot be made up. 20% of Final Grade.

NICU ICE Event

We will have an Interdisciplinary Communication NICU Event on Friday, April 4, 2025. This will include multiple disciplines within the College of Health Sciences and Human Services. Your participation is required. For those not attending the ICE event, you will have the option of writing a 25-page research paper on a topic given to you or a 0 for the grade. 10% of Final Grade.

12 Vent Checks

After the first Lab Day covering the four ventilators, you will be required to complete 3 vent checks per vent for a total of 12. These are to all have different settings and modes that you may choose. The purpose of this is to get you more familiar with setting up and adjusting vents in the Neo mode. These are due by April 8th at 5:00pm. 10% of Final Grade.

Lab Competencies

There will be several lab competency check offs that we will complete during the semester. These will cover the information that you have learned during the labs. All assigned competencies must be successfully completed by the student in order to complete the course. Please refer to the Lab Policy at the end of the syllabus for more information.

General Competencies

You will receive a list of general competencies that must be completed by the end of the semester. These may include observational, demonstration, and skills competencies. 10% of Final Grade.

NRP Mega Code Competency

We will have an NRP Mega Code check-off competency which must be passed in order to successfully complete this lab course. In order to progress to your NICU clinical rotations, you must be certified in NRP. Without this certification, you will not be able to progress in the program. 15% of Final Grade

Vent Competency

You will undergo a ventilator competency that will test your knowledge and skills on the use of ventilators used in the Neonatal and Pediatric populations. All skills presented within the lab may be tested on during this competency. 15% of Final Grade.

Final Lab Competency

You will undergo a final lab competency that will test your knowledge and skills on all components learned within this lab. All skills presented within the lab may be tested on during this competency. 20% of Final Grade.

NRP Exam

Passing the online NRP exam will be mandatory to pass this Lab. In order to progress to your NICU clinical rotations, you must be certified in NRP. Without this certification, you will not be able to progress in the program.

Late Work

Please make note of all deadlines and adhere to them. Anything not completed and submitted on time will be graded as a zero. This includes quizzes, megacodes, check-offs, and competencies. Please talk with your professor, prior to the due date, regarding circumstances that may prevent you from completing an assignment on time as instructed.

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 the MSU Texas Disability Support Services Site.

College Policies

Campus Carry Rules/Policies

Refer to: Campus Carry Rules and Policies

Smoking/Tobacco Policy

Midwestern State University seeks to provide a safe, healthy, pleasant environment for its faculty, staff, and students. To this end, the use of tobacco products, including smoke and smokeless tobacco, and the advertising, sale, free distribution, and discarding of tobacco products shall be prohibited in all indoor and outdoor facilities and in all university vehicles. The policy extends to faculty, staff, students, vendors, guests, and visitors.

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

Students who wish to appeal a grade should consult the Midwestern State University <u>Undergraduate Catalog</u>

Neo/Pedi Lab Groups:

Group 1	Group 2	Group 3	Group 4
Kelton Brown	Vivian Valdez	Myka Engle	Celeste Avalos
Mia Villarreal	Brenda Salcedo	Linny Lunsford	Tori Burleson
Madi Simmons	Ariel Nader	Abby Eskew	Elizabeth Moreno
Yesenia Garrido	Carlos Vasquez	Quintan Ringwald	Abby Velasquez
Kylie McAlister	Karla Rojas	Zahra Pinder	Vanessa Molencupp
Reann Hanna	Trinity Granados	Angela Romero	Faith Garcia
Gabby Charlton	Kayla Freeman	Hannah Allcon	

Course Schedule: Subject to Change

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Date	Activities
January 21 LAB 1	1:00 - 5:00 - Review Syllabus, NRP - Case
January 28 LAB 2	1:00 - 1:45 - Station 1: Initial Steps/Targeted SPO2 - Fino 1:45 - 2:30 - Station 2: PPV/MRSOPA - Judie 2:30 - 3:15 - Station 3: Intubation/Meconium/LMA - Case 3:15 - 4:00 - Station 4: Compressions/Medications - Owen 4:00 - 5:00 - Q/A & Student Practice Time
February 4 LAB 3	1:00 - 1:30 - Patient 1: Judie 1:30 - 2:00 - Patient 2: Owen 2:00 - 2:30 - Patient 3: Fino 2:30 - 3:00 - Patient 4: Case 3:00 - 4:00 - Q/A & Student Practice Time
February 11 LAB 4	NRP Mega Code Competency
February 18 LAB 5	1:00 - 2:00 - The Basics PowerPoint 2:00 - 2:30 - Station 1: Aerosol/MDI/O2 Delivery 2:30 - 3:00 - Station 2: CPT/Bronchial Hygiene 3:00 - 3:30 - Station 3: Suctioning 3:30 - 4:00 - Station 4: Continuous Nebulizers 4:00 - 5:00 - Q/A & Student Practice Time
April 1 LAB 6	Ventilator Set-Up and Vent Checks 1:00 - 2:00 - Vent #1 Groups 1 & 2 ~ Vent #2 Groups 3 & 4 2:00 - 3:00 - Vent #1 Groups 3 & 4 ~ Vent #2 Groups 1 & 2 3:00 - 4:00 - Vent #3 Groups 1 & 2 ~ Vent #4 Groups 3 & 4 4:00 - 5:00 - Vent #3 Groups 3 & 4 ~ Vent #4 Groups 1 & 2
April 4 ICE	ICE EVENT 8:00am-12:00pm
April 8 LAB 7	1:00 - 1:30 Ventilator Changes and Troubleshooting 1:30 - 2:00 - Station 1: Vent #1 2:00 - 2:30 - Station 2: Vent #2 2:30 - 3:00 - Station 3: Vent #3 3:00 - 3:30 - Station 4: Vent #4 3:30 - 5:00 - Q/A & Student Practice Time
April 15 LAB 8	Vent Competency
May 6 LAB 9	Final Lab Competency Practice
May 13 LAB 10	Final Lab Competency

Lab Policy:

Respiratory Care Student Conduct/Guidelines in Clinical Skills Laboratory:

The Clinical Skills Laboratory is provided to the students of the Respiratory Care program under the supervision of faculty. The labs are designed to provide opportunities for the student to learn and practice basic skills in preparation for the administration of quality patient care. It is the intent of the Respiratory Care program Faculty to provide a student-centered learning environment that will promote critical thinking and assist the student to be successful in their acquisition of skills obtained during scheduled and unscheduled clinical skills laboratory time. The following guidelines are important and consistent with the student transitioning to a professional Respiratory Therapist.

- 1. EMOTIONAL AND PHYSICAL REQUIREMENTS
 - a. The student is expected to manage their emotional stability in various situations allowing them to perform in stressful environments produced by academic studies and clinical skills laboratory simulations.
 - b. Students are required to have the emotional and physical ability to perform specific clinical applications while in the clinical skills laboratory. Those requirements are as follows:
 - Comprehension: comprehend and process information and calculations
 - Tactile: use of touch
 - **Hearing:** use of auditory sense
 - Vision: use of sight
 - Critical thinking: ability to problem solve
 - **Communication:** Communicate effectively in interactions with others verbally, nonverbally, and in written form.
 - Behavioral: emotional and mental stability

2. APPROPRIATE BEHAVIOR

a. Courteous behavior is always expected from the student. This includes maintaining
a sound level conducive to verbal communication and learning; and exhibiting
respectful behavior towards peers, faculty, and staff.

3. SAFETY

- a. The personal safety of the student in the skills lab is essential. It is the student's responsibility to familiarize themselves with the operation and function of the laboratory equipment.
- b. Report broken or unsafe equipment immediately to the faculty or staff.
- c. Take precautions to prevent injuries caused by sharp instruments or devices while practicing in the skills lab.

4. PREPARTORY ASSIGNMENTS

a. All clinical application pre-assignments must be completed prior to the scheduled clinical lab time. Preparation is necessary for the student to be successful in the acquisition of skills.

5. ELECTRONIC DEVICES

- a. Personal laptops and devices are allowed in the clinical skills laboratory to take notes and for educational purposes. It is asked that the students refrain from accessing social media sites while in educational situations.
- b. It is asked that cell phones be on silent mode in the clinical skills laboratory.
- c. Electronic devices will not be allowed during check-offs.

6. DRESS CODE

a. Activities in the clinical skills laboratory include climbing in and out of bed, exposing limbs, and working in close proximity with other students.

- b. Clothing during the summer labs should be worn which allows for comfort during physical activity and demonstrates consideration for the modesty of all students.
- c. Scrubs will be required during clinical skills laboratory during the Fall and Spring semesters. Scrubs should be pressed, clean, and display patch on the left shoulder as required for clinical.

7. HOUSEKEEPING

a. Prior to leaving the clinical skills laboratory area the student is required to clean their work space and put designated equipment away.

8. OPEN LAB TIME

- a. The clinical skills laboratory is open daily from 8am-5pm, Monday-Friday. The student may use the clinical skills laboratory during open lab time for skills practice.
- b. Students who are facing difficulties completing specific skills in the lab will need to schedule time with their instructors for skills remediation.

9. LABORATORY COMPETENCIES/CHECK-OFFS

- a. All assigned competencies must be successfully completed by the student in order to complete the course.
- b. The recorded grade for each check off will be what the student achieves on the initial attempt.
- c. If a student does not pass a check off with 75% or greater, they must attend remediation and demonstrate competency in order to move on to the next concept in the course. A maximum of 3 attempts to demonstrate competency will be enforced.
- d. Failure to successfully demonstrate competency on all check offs, will result in failure of the clinical skills laboratory course, preventing the student from progressing in the program.

10. ATTENDANCE POLICY

a. Clinical skills laboratory attendance and participation is essential. Daily attendance records will be kept and each missed lab will result in a 20% reduction in the lab attendance grade. Make-up for any time that is missed from lab is the responsibility of the student, not the faculty. Prior absence approval may be granted as deemed necessary by the professor.

RESPONSE TO VIOLATIONS OF THE RESPIRATORY CARE STUDENT CONDUCT/GUIDELINES IN CLINCAL SKILLS LABORATORY

 1^{ST} Offense: Verbal reprimand from the faculty, with a written record of the violation maintained. The faculty member will review the rule with the student and discuss a course of improvement.

2nd Offense: Written reprimand will be given with information specifying the consequences should a third offense occur. The student will not be permitted to return to the clinical skills laboratory for the remainder of the day and alternative assignments will be assigned to cover content missed.

3rd Offense: Dismissal from the Respiratory Care Program (not Midwestern State University).