



RESP 3562: Neonatal Procedures and Equipment

Course Syllabus Spring 2026

Gunn College of Health Sciences and Human Services

Professor Contact Information

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Class Meeting Date and Time:

Tuesdays: 1:00 – 5:00pm (Centennial 250)

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 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

Neonatal Resuscitation, 9th Ed. AAP; ISBN-13: 978-1-61002-857-8

Neonatal and Pediatric Respiratory Care, 6th Edition, Walsh, ISBN- 9780323833219

Communication with the Instructor:

Communication will be through the student's Midwestern State University email account. The instructor will respond or at least acknowledge email messages from students within a maximum of five (5) business days when MSU is in session. Beyond standard university holidays and breaks, the instructor will notify students of any extended periods of time when email contact is not practical (professional meetings, etc.).

Grading:**Table 1: Percentages allocated to each assignment.**

Assignments	Percent of Grade
Pop Quizzes	25%
12 Vent Checks	10%
NRP Mega Code Competency	25%
Ventilator Competency	15%
Final Lab Competency	25%
Total	100%

Table 2: Total percent for final grade.

Grade	Percent
A	90-100%
B	80 to 89%
C	75 to 79%
D	70 to 74%
F	Less than 69%

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.

Assignments:

All assignment submissions made by students in D2L are considered final submissions. It is the student's responsibility to ensure that the correct and complete file has been uploaded. If a student submits an incorrect document, an incomplete draft, or any unintended version, the assignment will be graded as submitted. Students are strongly encouraged to double-check their upload before finalizing the submission.

Additionally, Apple file formats such as *.pages* or *Keynote* files will not be accepted. These formats do not open on MSU computers. All submissions must be uploaded in Microsoft Office formats, such as *.doc*, *.docx*, *.ppt*, or *.xlsx*, or as otherwise specified in the assignment instructions.

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.

12 Vent Checks

After the first Lab Day covering the 4 ventilators, you will be required to complete 3 vent checks per vent for a total of 12. All 12 checks must have different settings that you may choose. The purpose of this is to get you more familiar with setting up and adjusting vents in the Neo mode.

NRP Mega Code Competency

We will have an NRP Mega Code check-off competency which must be passed to successfully complete this lab course. 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.

Ventilator 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.

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.

NRP Exam

Passing the online NRP exam will be mandatory to pass this Lab. 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, Make up Work:

Late work is typically not accepted within the course and is subject to a grade of zero. However, late work may be accepted at the discretion of the instructor, except for the final lab competency. The final lab competency must be taken at the scheduled time and date. If a student is going to miss an assignment or course activity, it is the student's responsibility to contact the instructor prior to the submission deadline. Communication is key. If late work is accepted by the instructor, a 10% reduction will be taken for each day (weekends and holidays included) after the scheduled assignment or course activity due date.

Important Dates:

Deadline to file for May graduation: February 16th, 2026

Last Day to drop with a grade of "W": April 29th, 2026 by 4:00pm

Refer to: [Drops, Withdrawals, Invalidation, & 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.

Online Computer Requirements:

Taking this class with an online component requires you to have access to a computer (with Internet access) to complete and upload your assignments. It is your responsibility to have (or have access to) a working computer in this class. **Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered reason for the instructor to allow students extra time to submit assignments or tests.* Computers are available on campus in various areas of the buildings as well as the Academic Success Center. **Your computer being down is not an excuse for missing a deadline!!* Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into [D2L](#).

Instructor Class Policies:

Students are required to participate in class in a respectful manner whether or not the interactions are online or face-to-face. All course assignments must be submitted to D2L in Microsoft format including, Word documents and Power Point or as a PDF. For students without Microsoft software, Microsoft offers students a [free download of Office 365](#).

Disability Support Services:

Midwestern State University is committed to providing equal access for qualified students with disabilities to all university courses and programs, and by law all students with disabilities are guaranteed a learning environment that provides reasonable accommodation of their disability. This guarantee is provided through Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. The ADA reads: "No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subject to discrimination by any such entity." The Director of Disability Support Services serves as the ADA Coordinator and may be contacted at (940) 397-4140, TDD (940) 397-4515, or 3410 Taft Blvd., Clark Student Center 168.

Student Handbook:

Refer to: [Student Handbook](#)

Academic Misconduct Policy & Procedures:

This course adheres to the MSU Code of Conduct. Academic dishonesty, however small, creates a breach in academic integrity. A student's participation in this course comes with the expectation that his/her work will be completed in full observance of the MSU Code of Student

Conduct. A student should consult the Student Handbook for answers to any questions about the code.

Students are encouraged to take full advantage of many resources available including Internet sites, handouts, other textbooks & journals, faculty, and peers. This interactive collegial learning environment is conducive to life-long learning.

The components of this course are designed to represent the efforts of each student individually and are NOT to be shared. Submitting someone else's work as your own or improperly cited work constitutes plagiarism. Please see the Midwestern State University Catalog for further discussion of plagiarism. Plagiarism will constitute in an F for the course and the student will be referred to administration for further action. When students submit their efforts for grading, they are attesting they abided by this rule.

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 completing other assignments; or (3) the acquisition of tests or other academic materials belonging to the university faculty or staff without permission.

Plagiarism includes, but is not limited to: the use of, by paraphrase or direct quotation without correct citation in the text and on the reference list, the published or unpublished works of another person. *Students may not submit papers and assignments that they have previously submitted for this or other courses. The use of materials generated by agencies engaged in "selling" term papers is also plagiarism. Students are encouraged to review the tutorials and suggested websites for more information about plagiarism.

By enrolling in this course, the student expressly grants MSU a limited right in all intellectual property created by the student for the purpose of this course. The limited right shall include but shall not be limited to the right to reproduce the students work product in order to verify originality and authenticity, and for educational purposes.

College Policies:

Campus Carry Rules/Policy:

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

Smoking/Tobacco Policy:

Refer to: [Tobacco-free Policy](#)

Alcohol and Drug Policy:

Refer to: [Alcohol and Drug Policy](#)

Grade Appeal Process:

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

Course Schedule:

Date	Readings, Lectures, Exams, Assignments
January 20	1:00 – 5:00 – Review Syllabus, NRP – Case
January 27	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 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 10	NRP Mega Code Competency
February 17	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
March 31	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 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 14	Vent Competency
May 5	Pedi Vents Final Lab Competency Practice
May 11/12	Final Lab Competency

**Notice:* I suggest printing a copy of the course schedule to help you stay organized and submit your assignment by the deadlines. Please note that changes in the course syllabus, assignments, and schedule may be made at the discretion of the professor.

Lab Groups:

Group A	Group B	Group C	Group D
Angela	Boniface	Brianna	Britten
Celiana	Clarissa	Elizabeth	Matthew
Jackie	Karyna	Kelsey	Kendra
Kyle	Litzy	Faith	Raven
Ronni	Samantha	Schy	Steveanna
Tate	Madi		Kiley

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. PREPARATORY 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 CLINICAL SKILLS LABORATORY

1st 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).