



Course Syllabus: Neonatal and Pediatric Respiratory Care
College of Health Sciences and Human Services
RESP 3553
Spring Semester 2025

Contact Information

Instructor: Randy Case, Ph.D., RRT-NPS
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Course Description

The focus of this course is on the advanced theoretical application of respiratory care to the pediatric and newborn patient. Topics include development of the pulmonary and cardiovascular systems, patient assessment, intrinsic lung diseases, congenital heart diseases, SIDS and apnea, applied pharmacotherapy, surfactant replacement therapy, gas therapy, ECMO, and ventilator support techniques.

Course Meeting Schedule

Tuesdays and Thursdays: 9:30am – 12:00pm

Course Objectives

Course objectives include: describe the fetal development of the cardiopulmonary system; discuss common respiratory disorders in the neonatal and pediatric patient including pathology, signs and symptoms, and treatments; discuss common therapeutic procedures used in the treatment of the neonatal and pediatric patient including, indications, proper techniques, and contraindications; identify ventilation and oxygenation techniques used in the neonatal and pediatric patient; discuss the use of common conventional therapies used in the neonatal and pediatric patient with newer specialized therapies; demonstrate ability to apply research findings to clinical practice issues.

Required Textbook & Instructional Materials

Neonatal and Pediatric Respiratory Care, 5th Edition, Walsh, ISBN-978-0-323-47947-9

Student Handbook

Refer to: [Student Handbook](#)

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Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Since writing, analytical, and critical thinking skills are part of the learning outcomes of this course, all writing assignments should be prepared by the student. Developing strong competencies in this area will prepare you for a competitive workplace. Therefore, AI-generated submissions are not permitted and will be treated as plagiarism. 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
Lecture Examinations	50%
Pop Quizzes	10%
Community Service	10%
Pedi Research Paper	10%
Comprehensive Final Exam	20%

Grading Scale

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

A minimum grade of 75, or a C, is required in all respiratory courses. All assignments must be completed by 11:59pm on the due date.

Class Participation

Class participation is an integral part of this course. You are expected to participate actively in and contribute to the learning experience in this course. Participation means providing substantive comments, questions and contributions that advance the learning process for you and/or other learners in the course.

Lecture Examinations

(5) In-depth exams covering specified material given from your readings and lectures. Examinations may consist of true/false, multiple choice, short answer or essay questions.

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. Quizzes will account for 10% of your final grade.

Pediatric Research Paper

This paper will consist of 3-4 pages of content. This does not include your title or reference pages. The paper will cover a specific topic within the specialty field of Neonatal and Pediatric Respiratory Care. You may choose your topic, but you need to have approval from me on the topic as only one student will be able to research each topic. This paper will be based off of literature reviews you perform on the topic. A minimum of 5 scholarly, peer-reviewed resources (from within the past 5 years) are required for your research. This paper must follow APA guidelines, including in-text citations. An APA style guideline resource is provided to you within the additional resources module. An example of a typical APA style research paper can be found in the additional resources module as well. I do expect well written papers that are at a collegiate level of writing. A rubric for the paper will be used for a grading guideline. Make sure you submit as a WORD document. This paper is due in D2L on February 15th by 11:59pm.

Community Service

As part of this course, students will engage in community service projects focused on respiratory care. These service activities are designed to enhance understanding of respiratory therapy concepts by applying them in real-world settings, allowing students to make a tangible impact in the community. Students will work with local healthcare providers, schools, or community organizations to educate families, support at-risk children, and increase awareness around respiratory health. Each project will involve hands-on experience that integrates course objectives, fostering a deeper understanding of both clinical skills and the socio-environmental factors affecting respiratory health in children and newborns.

Grading Criteria:

- **Engagement and Professionalism:** Demonstrated commitment to the service project, including attendance, active participation, and respectful interaction with community members.

- **Reflective Journal:** A reflection on the service experience, connecting classroom theory to fieldwork, challenges faced, and skills developed.
- **Final Presentation:** At the end of the semester, students will present a summary of their project, highlighting its impact on the community and what they learned from the experience.

Through this service component, students will gain valuable experience in patient education, teamwork, and communication, preparing them to meet the needs of the pediatric and neonatal populations they will one day serve.

Comprehensive Final

An in-depth comprehensive examination covering the material presented throughout the entire semester. This exam will consist of true/false, multiple choice, short answer or essay questions.

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, exams, papers, and projects. Please talk with your professor, prior to the due date, regarding circumstances that may prevent you from completing an assignment on time. All assignments must be completed by 11:59pm on the due date, unless otherwise 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 [Undergraduate Catalog](#)

Course Schedule:

On the next page, you will find the course schedule. 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.

Course Schedule

Date	Activities
January 21	Chapter 1
January 23	Chapters 2 & 3
January 28	Exam 1 (Chapters 1, 2, 3)
January 30	Chapters 4 & 5
February 4	Chapters 6, 8, & 9
February 6	Exam 2 (Chapters 4, 5, 6, 8, & 9)
February 11	Chapters 22 & 23
February 13	Chapters 27 & 28
February 18	Exam 3 (Chapters 22, 23, 27, & 28)
February 20	Chapter 15 & 16 (Research Papers Due By 11:59pm)
April 1	Chapter 17
April 3	Exam 4 (Chapters 15, 16, & 17)
April 8	Chapters 10, 11, & 26
April 10	Chapter 24
April 15	Exam 5 (Chapters 10, 11, 24, & 26)
May 6	In Class Presentations of Community Service Projects Submit in D2L by 8:00AM
May 8	Final Exam Review
May 12-15	Finals

Course schedule is subject to change.