COURSE TITLE
Neonatal-Pediatric Respiratory Care

COURSE NUMBER
RESP 3553-X1

COURSE DESCRIPTION
The focus of this course is on the advance 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.

CREDITS
3 credits

COURSE INSTRUCTOR
Jennifer Gresham MA, RRT-NPS
Phone: 940-397-4656
Fax: 940-397-4933
Office: Bridwell Hall # 301G
Email: Jennifer.gresham@mwsu.edu

OFFICE HOURS
By appointment

AUDIENCE
Distance Respiratory Care Students

COURSE OBJECTIVES:
Upon completion of this course, the student will be able to:

1. Describe the fetal development of the cardiopulmonary system.

2. Discuss common respiratory disorders in the neonatal and pediatric patient including:
   a. Pathology
   b. Signs and symptoms
   c. Treatment
3. Discuss common therapeutic procedures used in the treatment of the neonatal and pediatric patient including:
   a. Indications
   b. Proper techniques
   c. Contraindications

4. Identify ventilation and oxygenation techniques used in the neonatal and pediatric patient.

5. Discuss the use of common conventional therapies used in the neonatal and pediatric patient with newer, specialized therapies.

6. Demonstrate ability to apply research findings to clinical practice issues.

**Learning Experiences:**

1. Discussions
2. Class Modules with assigned readings and activities
3. Midterm and Final Exam
4. Application Activity

**American Disabilities Act (ADA)**

Midwestern State University (MSU) does not discriminate on the basis of an individual’s disability and complies with Section 504 and the Americans with Disabilities Act in its admission, accessibility and employment of individuals in programs and activities.

MSU provide academic accommodations and auxiliary aids to individuals with disabilities, as defined by law, who are otherwise qualified to meet academic and employment requirements. For assistance call (940) 397-4618 or 397-4515.

Please see the instructor outside of class to make any arrangements involving special accommodations. It is the student’s responsibility to declare any disabilities. After declaration, preferably at the beginning of each semester, the student needs to contact individual instructors to determine any reasonable accommodations that may be required.

**ACADEMIC HONESTY:**

Plagiarism is the use of someone else's thoughts, words, ideas, or lines of argument in your own work without appropriate documentation (a parenthetical citation at the end and a listing in "Works Cited")—whether you use that material in a quote, paraphrase, or summary. It is a theft of intellectual property and will **not be tolerated**, whether intentional or not.
Student Honor Creed

As an MSU Student, I pledge not to lie, cheat, steal, or help anyone else do so."

As students at MSU, we recognize that any great society must be composed of empowered, responsible citizens. We also recognize universities play an important role in helping mold these responsible citizens. We believe students themselves play an important part in developing responsible citizenship by maintaining a community where integrity and honorable character are the norm, not the exception. Thus, We, the Students of Midwestern State University, resolve to uphold the honor of the University by affirming our commitment to complete academic honesty. We resolve not only to be honest but also to hold our peers accountable for complete honesty in all university matters. We consider it dishonest to ask for, give, or receive help in examinations or quizzes, to use any unauthorized material in examinations, or to present, as one's own, work or ideas which are not entirely one's own. We recognize that any instructor has the right to expect that all student work is honest, original work. We accept and acknowledge that responsibility for lying, cheating, stealing, plagiarism, and other forms of academic dishonesty fundamentally rests within each individual student. We expect of ourselves academic integrity, personal professionalism, and ethical character. We appreciate steps taken by University officials to protect the honor of the University against any who would disgrace the MSU student body by violating the spirit of this creed. Written and adopted by the 2002-2003 MSU Student Senate.

Honor System:

All components of RESP 3553-X1 are designed to represent the efforts of each student INDIVIDUALLY and are NOT to be shared, copied, or plagiarized from other sources. 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.

Academic dishonesty (cheating, plagiarism, etc.) will not be tolerated in this class. Whenever a student is unsure of whether a particular situation will be interpreted as academic dishonesty, he/she should ask the instructor for clarification. If students are guilty of academic dishonesty, a grade of zero (0) will be given for the quiz, assignment, etc. Cases may also be referred to the Dean of Students for possible dismissal from the university.

PLEASE NOTE
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 student’s work product in order to verify originality and authenticity, and for educational purposes. Specifically, faculty may submit student papers and assignments to an external agency to verify originality and authenticity, and to detect for plagiarism.
LEARNING RESOURCES

REQUIRED TEXTS:
Czervinske, M., & Barnhart, S. Perinatal and Pediatric Respiratory Care, 3rd Edition.

ADDITIONAL READINGS:
Located under course content


RESP 3553 Online---Blackboard Online: Login, Password, and Communication
Within RESP 3553 on Blackboard, and from the first page note these icons: Syllabus, Learning modules, Additional Readings (which contains the handouts), Web Links, Assessments, and Discussion.

1. **Syllabus**---contains the syllabus.

2. **Additional Readings**---for the electronic files of handouts for the course.

3. **Learning Modules**---these are modules for course tasks. Please review and read these; they provide additional learning information for each chapter covered in the course.

4. **Discussion**---here you will post your journals and comment on journals of other students. Post the weekly journal in the Journal section. Discussion and dialogue allows you to post questions, or comments related to the course. You can post and others respond at the Journal or Dialogue & Dialogue sections.

5. **Web Links**---you will find useful information that will link you to online respiratory research databases and additional neonatal pediatric information.

6. **Assessments**---here you will find your midterm and final exams. All assessments are timed and you may only take the exam once.

7. **Email**---Please send messages to me through WebCT. However, if you have any problems, you may contact me via email jennifer.gresham@mwsu.edu

   Availability online: This means that I will be checking email regularly during these times. Monday through Friday: 0800 – 1700.

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**CLASS PARTICIPATION:**

Class participation is an integral part of this online course. There are numerous activities that require each student to post opinions from the readings, research, or in response to the discussion by others. 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. Participation may include responding to questions and issues posed by other learners. Non-substantive comments, irrelevant comments and comments of the nature of “I agree” or “I disagree” (unless the latter two are elaborated upon to make them substantive) do not count towards meeting the participation requirement. You are expected to participate each academic week.

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**FEEDBACK ON ASSIGNMENTS AND EXAMS:**

For each assignment, I have given an expected completion date for grading. I will try to have your assignments graded within two weeks of the due date. You are expected to do your own work just as you would be in a “traditional” classroom setting.
GRADED ITEMS AND GRADE DETERMINATION

Class Journals

The class journal is for you to post your comments, assessments, insights or questions on the readings for the week. You may choose to comment on, a chapter, or article, or on several. Please do not re-state or summarize the weekly readings. You may also want to find new peer reviewed journal articles that relate to the weekly readings and share with your peers. In addition to the suggestions above consider these questions: What did you learn? What do you agree or disagree with. How can you apply this information to clinical practice? Each student should login and read journals and comment on other postings. Each week you are required to read 2 other student’s journals and give feedback. Your feedback should be constructive, and should show that you have actually read their response. Responses of 1-2 lines are not acceptable. Post your journals under Discussion/Journal. Your journal should be posted by midnight on Sunday.

Application

The intent of this project is to share ideas and advance student knowledge of assessment and care of neonatal and pediatric patients. You will be required to submit a power point presentation on a specific neonatal or pediatric respiratory therapeutic technique that you are interested in. Power point should be around 15-20 slides. EX: of advance practice techniques include ECMO, Nitric Oxide, jet ventilation, or new ventilation strategies. You may cover something interesting that is new at the hospital you work at. Or you may present a case study. The project should include the indications, contraindications, hazards, and desired outcomes. You must cite your references at the end of your project. The project must have at least 10 references. References must be current (within the last 5 years). Use scholarly sources; apply APA style to the manuscript.

Midterm

In-depth exam covering specified material given from your readings. Examinations may consist of true/false, multiple choice, short answer or essay questions.

Final Exam

A comprehensive examination will consist of true/false, multiple choice, short answer or essay questions.

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!

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Due Date</th>
<th>Grade Points</th>
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<tbody>
<tr>
<td>1. Complete Biographical Info</td>
<td>6/5</td>
<td>Req.</td>
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<tr>
<td>3. Application--- The intent of this project is to share ideas and advance student knowledge of assessment and care of neonatal and pediatric patients. You will be required to submit a power point presentation on a specific neonatal or pediatric respiratory therapeutic technique that you are interested in. Power point should be around 15-20 slides</td>
<td>7/24</td>
<td>30 pts</td>
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</table>
Examples of advance practice techniques include ECMO, nitric oxide, jet ventilation, or new ventilation strategies. You may cover something interesting that is new at the hospital you work at. Or you may present a case study. The project should include the indications, contraindications, hazards, and desired outcomes. **You must site your references at the end of your project.** The project must have at least 10 references. Use scholarly sources; apply APA style to the manuscript.

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<tr>
<th>4. Midterm Exam---</th>
<th>In-depth exam covering the specified material from your readings. Examinations may consist of true/false, multiple choice, short answer or essay questions.</th>
<th>7/3</th>
<th>25 pts</th>
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</table>
| 5. Online journals--- | Post your insights, assessments, conclusions, reflections, or questions relative to course readings by midnight each Sunday. You may also want to find new peer reviewed journal articles that relate to the weekly readings and share with your peers. For the journal consider these questions:
   1. What do you now know that you did not last week?
   2. What do you conclude? How does this relate to hospital practice?
   3. What questions do you have? Each student should login and read journals and comment on other postings. Each week you are required to read 2 other student’s journals and give feedback. Your feedback should be constructive, and should show that you have actually read their response. Responses of 1-2 lines are not acceptable. (4pts x 5) | As assigned in course schedule | 20 pts |
| 6. Final Exam--- | A comprehensive examination will consist of true/false, multiple choice, short answer or essay questions. | 8/31 | 25 pts |

**MISSED EXAM, OR OTHER GRADED ITEM POLICY**
Anything not completed and handed in on time will be subjected to a 15% per day penalty (weekends and holidays included). All assignments must be completed by midnight of the due date.
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.

### Course Schedule:

<table>
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<tr>
<th>Date</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>May 29-June 3</td>
<td>Introduction: Personal biographies posted on Discussion Board</td>
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| June 4-10  | **Unit I:** Read Chapters 5-8, 10 & 11 Additional Readings:  
  - Flaws in the assessment of the best interests of the newborn  
  - Transcutaneous carbon dioxide monitoring in infants and children  
  Post Journals |
| June 11-17 | **Unit II:** Read Chapters 27-28, 33-35 Additional Readings:  
  - Transient tachypnea of the newborn: Predictive factor for prolonged tachypnea  
  - Assessment of dysphagia in infants with facial malformations  
  - Trends in asthma prevalence, admission rates, and asthma deaths  
  - Cystic Fibrosis Pulmonary Guidelines: Airway Clearance Therapies  
  Post Journals |
| June 18-24 | **Unit III:** Read Chapters 30, 32, 40, 43, 44  
  - Girl, 6, With Rapid Heart Rate  
  - Risk factors for extubation failure in infants with severe acute bronchiolitis.  
  - Spinal muscular atrophy type 1: Is long-term mechanical ventilation ethical?  
  Post Journals |
<p>| June 25-July 1 | Midterm Exam |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Content</th>
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<tbody>
<tr>
<td>July 2-8</td>
<td><strong>Unit IV:</strong></td>
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<td>- Pediatric respiratory syncytial virus infection and high frequency oscillatory ventilation</td>
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<td>- Thoracoscopic Repair in the Neonatal Intensive Care Unit for Congenital Diaphragmatic Hernia During High-Frequency Oscillatory Ventilation</td>
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<td><strong>Read Chapters 17-20</strong></td>
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<td><strong>Post Journals</strong></td>
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<tr>
<td>July 9-15</td>
<td><strong>Unit V:</strong></td>
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<td>- Factors Influencing Outcome of Patients Receiving Extracorporeal Membrane Oxygenation for Neonatal and Pediatric Respiratory Failure</td>
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<td>- Safety and efficacy of high-frequency jet ventilation in neonatal transport</td>
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<td><strong>Read Chapters 22, 23, 45, 46</strong></td>
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<td><strong>Post Journals</strong></td>
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<tr>
<td>July 16-22</td>
<td><strong>Application Project Due</strong></td>
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<td></td>
<td><strong>No Journal</strong></td>
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<tr>
<td>July 23-29</td>
<td><strong>Final Exam</strong></td>
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<td><strong>No Journal</strong></td>
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<tr>
<td>July 30-Aug. 2</td>
<td><strong>Post final thoughts, comments, and suggestions for the course</strong></td>
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<td><strong>Have a nice summer!!!!!!!</strong></td>
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