

Adult Critical Care

RESP 3543-X20

Spring 2023

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Office Hours By appointment via e-mail

Weekly Meeting Pattern:

On-line Course

Suggested Text:

DesJardins T, Burton GG. Clinical Manifestations and Assessment of Respiratory Disease, Seventh Edition, Mosby 2011.

Kacmarek, RM, Wilkens RL, Stoller JK. Egan's Fundamentals of Respiratory Care, 11th Edition, Elsevier 2016, or 12th Edition 2020.

Course Description:

The focus of this on-line course is a thorough review of ventilatory support techniques. Emphasis is placed on adult applications; however some neonatal and pediatric support techniques may be covered. Topics include etiology of respiratory failure, physical implications of positive pressure ventilation, methods of providing support, prescribing machine settings and managing the patient-ventilator system, hemodynamic and gas exchange monitoring, weaning techniques and non-invasive applications.

Credits:

3 Credits

Objectives:

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

1. Define basic modes utilized in mechanical ventilation of the adult patient.
2. Describe advanced modes utilized with mechanical ventilation.
3. Describe the utilization of inhaled aerosols in the critical care patient.
4. Describe current strategies utilized in the monitoring of the critically ill patient.
5. Discuss the ethical aspects of advanced directives and mechanical ventilation.

Audience: Distance Respiratory Care Students

Attendance Policy: Regular class attendance is expected, and is used for grading purposes. Attendance may be evaluated on the basis of the student's frequency of log-in's or participation in course postings. There is a direct correlation between grades and class participation. Students who check the site regularly and participate typically do better in the course. Although the syllabus includes an

approximate calendar, changes can occur during the year. If changes are made it is the student's responsibility to check the site for any changes posted by the instructor. It is also the student's responsibility to keep up with material as it is posted on the site.

American with Disabilities Act (ADA):

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Disability Support Services in Room 168 of the Clark Student Center, 397-4140.

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.

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.

Approximate Grading Scale:

A	90-100%
B	81-89%
C	75-80%
D	61-74%
F	< 60%

*****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.**

Missed Homework/Exam Policy:

Late or missed work is not accepted unless notification and prior arrangements are made with the course instructor.

Honor System:

All components of RESP 3543 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 that 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 and 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.

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 “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.

Grade Items and Grade Determination:

Hot Topic Assignments	30%
Seminar (Summary and Discussion)	20%
Dialectical Journals	10%
Newsletter	40%

HOT TOPIC ASSIGNMENTS/DISCUSSION- 30%

Each week a hot topic assignment will be posted asking the student to research a specific subject currently on the forefront of respiratory care. **Each student is required to locate one peer-reviewed journal article published within the past five years pertaining to the question posed and post either that article or a link to that article on the discussion board. The student should provide a brief summary (300 words), of the posted article.** The student is encouraged to include personal opinions and insight as appropriate to the subject matter. This summary should be well written and should utilize proper grammar. The summary should be posted on the discussion board along with the referenced article.

DISCUSSION FOR HOT TOPIC

A weekly hot topic is posted and each student should have the initial post completed by **Wednesday 11:59 CST**. Each student is expected to review and **comment on a minimum of two** hot topic assignments by **Sunday 11:59 CST**. The student is expected to have reviewed the posted article and the summary. **Feedback should be well thought out and constructive in nature with a minimum of 100 word responses.** Feedback should be posted under the Dialogue and Discussion Link associated with the Weekly Hot Topic. Below you will find some suggestions for feedback as well as the grading rubric for discussions.

SUGGESTIONS FOR FEEDBACK:

- Did the student clearly demonstrate all learning objectives?
- Did the student hold the learners interests?
- Was this paper adequate for the criteria outlined in the course?
- Did the student close the paper effectively by summarizing the major points?
- What did you learn from reading this article and summary?

DISCUSSION BOARD GRADING RUBRIC

In all discussion boards students are expected to:

- 1.) raise thoughtful questions
- 2.) incorporate content from readings
- 3.) build on the ideas of others
- 4.) synthesize across readings and discussions
- 5.) expand the class' perspective
- 6.) appropriately challenge assumptions and perspectives

7.) use citations to support post in proper APA format

8.) **initial post should be at least 300 words** (approximately 1/2 page); read and **respond (100 words)** to two classmate's posts as appropriate using 3), 4), and 6) as guiding elements (avoid "I agree" or "good post" type comments)

Criteria	Level 6 6 points	Level 5 5 points	Level 4 4 points	Level 3 3 points	Level 2 2 points	Level 1 1 point
Discussion	Participates in discussion board appropriately and always contributes to the discussion in the aforementioned ways meets all of the criteria items 1-8	Participates in discussion board regularly and often contributes to the discussion in the aforementioned ways. Lacks 1 -2 of the ways listed.	Participates in discussion board regularly and sometimes contributes to the discussion in the aforementioned ways. Lacks 3-4 of the ways listed	Participates in the discussion board sporadically & rarely contributes to the discussion in the aforementioned ways. Lacks 4 or more of the ways listed.	Posts to the discussion board at the last minute. Due to time of post there is little or no opportunity for others to provide input.	Does not participate in the discussion board. Only reads the posts of others.
Timeliness	Initial posting completed by Wednesday AND 2 responses posted by Sunday to others.	Initial posting completed by Wednesday with only 1 peer response.	Initial posting completed by Wednesday with no peer responses.	Initial posting completed by Thursday and 2 responses by Sunday.	Initial posting and responses after Thursday.	No weekly participation.

DIALECTICAL JOURNALS- 10%

Each student will be asked to review and provide feedback to **one** article posted as part of their hot topic assignment in the format of a dialectical journal. A dialectical journal is a double-entry note taking system that helps one to read critically and encourages the habit of reflective questioning. Students may choose any two articles, not necessarily their own. The student should have a minimum of 15 entries with comments for each. **Dialectical journals are due Week 5 (2/19) and Week 10 (3/26).** These journals should be submitted under the Dropbox Icon.

SEMINAR (SUMMARY AND DISCUSSION)-20%

The purpose of this seminar is to review and discuss with your peers an area of interest (not yet covered) to you regarding the topic you choose in adult critical care. To begin, find **one** peer-reviewed journal article from the last five years addressing any aspect of your topic that you find interesting. Create a summary of the article, including importance of the topic in the field, and formulate three discussion questions related to the article. This summary should be approximately one page long, not including the references, and should follow current APA writing guidelines.

The student led seminars have two parts.

1. The first part is the assignment, consisting of an article summary, which is due in week 13 (4/10 - 4/16) for all students.
2. The second part is the discussion facilitation, which will occur in week 14 (4/17-4/23). For the discussion facilitation, you will post, as your original post, an electronic version of the link to your article, your summary, and your discussion questions. Throughout the module, you are responsible for encouraging and facilitating discussion prompted by your posted article and discussion questions. In addition you must participate in at least two other discussion threads, and at least one of your response posts must include current, peer-reviewed literature to support your comments.

NEWSLETTER- 40%

The intent of this project is to share ideas and advance student knowledge of modalities utilized for the management of the critically ill respiratory patient. You will be required to create a professional newsletter focused on influencing adult critical care in an area of your interest and advocating the respiratory therapists role in that influence. When considering your topics of focus, consider advanced practice techniques such as: advanced ventilator modes, Nitric Oxide, jet ventilation, optimal

PEEP, or other innovative strategies incorporated in the critical care setting. This may be a strategy recently adopted by your facility or a modality you consider cutting edge in the world of respiratory care. This assignment can be approached from a clinical, administrative, academic, or research focus.

When organizing your newsletter consider the relevance of including some of the following to better promote your focus.

- Background of the topic
- In-depth description of topic
- Indications and Contraindications associated with the utilization of the advanced technique
- Strategies currently in place that work or don't work to promote your topic
- Desired outcomes with the use of the advanced technique
- How the professional can (or does) fill the gaps in promoting your health focus

Please be sure to ensure that the following components are addressed in your newsletter. Please review the rubric for evaluation criteria.

- Content (accurate and informative),
- Subject of the matter with required elements being met (listed above)
- Presentation (correct grammar and spelling, appearance, graphics and color use, readability, creativity).The newsletter should follow APA scholarly writing guidelines.
- Logical organization of material presented
- Critical thinking in the analysis and synthesis of the research articles used
- Inclusion of a bibliography, an alphabetized reference list in APA format to support the content of your newsletter. The project must have at least 5 references. References must be current (within the last 5 years). Use scholarly sources; cite according to APA style. This bibliography will be a list of references that were consulted but not cited in the text (would not normally be included in an APA paper). For more information on bibliographies please visit <http://www.apastyle.org/learn/quick-guide-on-references.aspx>.

The newsletter should be approximately 4 -5 pages in length, not including bibliography, and include appropriate graphics. Templates for newsletters may be found at: <https://support.office.com/en-us/article/Download-free-pre-built-templates-29f2a18d-29a6-4a07-998b-cfe5ff7fbbbb>

Newsletter topics are due Week 2 (1/23-1/29) and should be submitted in the Newsletter Topic Drop Box.
Completed newsletters are due Week 15 (4/24-4/30) and should be submitted in the Newsletter Project Drop Box.

Syllabus outlines assignments and due dates:

Date		Topic	Text Reference
Week 1	Jan 17-22	Review Syllabus Post Introductions on the Discussion Board	
Week 2	Jan 23-29	<u>Complete Hot Topic Assignment # 1</u> ***Newsletter Topic Due 1/29*** Submit in Newsletter Topic Drop Box	Review Egan's 11th Edition, Chapter 45- Mechanical Ventilators & 46- Physiology of Ventilatory Support
Week 3	Jan 30-Feb 6	<u>Complete Hot Topic Assignment # 2</u>	Review Egan's 11th Edition, Chapter 48- Initiating and Adjusting Ventilatory Support,
Week 4	Feb 6-12	<u>Complete Hot Topic Assignment # 3</u>	Review Egan's 11th Edition, Chapter 51- Monitoring and Management of the Patient in the Intensive Care Unit
Week 5	Feb 13-19	*** Dialectical Journal Assignment #1 due*** Submit in drop box Journal #1	

Week 6	Feb 20-26	<u>Complete Hot Topic Assignment #4.</u>	Review Egan's 11th Edition, Chapter 50- Extracorporeal Life Support
Week 7	Feb 27-Mar 5	<u>Complete Hot Topic Assignment # 5.</u>	Review Egan's 11th Edition, Chapter 29-Acute Respiratory Distress Syndrome
Week 8	Mar 6-12	<u>Complete Hot Topic Assignment #6.</u>	Review Egan's 11th Edition, Chapter 5-Ethical and Legal Implications of Practice
Week 9	Mar 13-19	Spring Break	
Week 10	Mar 20-26	*** Dialectical Journal Assignment #2 due*** Submit in drop box under Journal #2	
Week 11	Mar 27-Apr 2	<u>Complete Hot Topic Assignment # 7.</u>	Review Egan's 11th Edition, Chapter 52- Discontinuing Ventilatory Support
Week 12	Apr 3-9	<u>Complete Hot Topic Assignment # 8.</u> Holiday break April 5-9	Review Clinical Manifestations and Assessment of Respiratory Disease Sixth Edition, Chapter 12 pg. 171-198
Week 13	Apr 10-16	***Summary of Article for Seminar***	
Week 14	Apr 17-23	*** Student led seminar***	
Week 15	Apr 24- 30	***Newsletter Due*** Submit in drop box under Newsletter Project	
Week 16	May 1-6	Post what you found most interesting about this course and any improvements that are needed.	***Complete Course Evaluations***
Week 16	May 7-10	All Final grades will be posted. Commencement!	Commencement May 13th!