North Central State College

MASTER SYLLABUS
2019-2020

A. Academic Division: Health Sciences

B. Discipline: Respiratory Care

C. Course Number and Title: RESP 2310 Respiratory Care Equipment/Procedures III

D. Course Coordinator: Tricia Winters, BBA, RRT, RCP
Assistant Dean: Melinda Roepke, MSN, RN

Instructor Information:
- Name: Click here to enter text.
- Office Location: Click here to enter text.
- Office Hours: Click here to enter text.
- Phone Number: Click here to enter text.
- E-Mail Address Click here to enter text.

E. Credit Hours: 2
Lecture: 1 hour
Laboratory: 3 hours

F. Prerequisites: RESP1220
Co-requisite(s): RESP2330, RESP2390

G. Syllabus Effective Date: Fall, 2019

H. Textbook(s) Title:
Neonatal/Pediatric Respiratory Care: A Critical Care Pocket Guide
- Author: Oakes
- Copyright Year: 2009
- Edition: 2009
- ISBN #: 978-0932887399

Egan's Fundamentals of Respiratory Care
- Authors: Kacmarek, Stoller, and Heuer
- Copyright Year: 2012
- Edition: 10th
- ISBN #: 978-0323082037

Foundations in Neonatal and Pediatric Respiratory Care
- Authors: Volsko & Barnhart
- Copyright Year: 2020
- Edition: 4th
- ISBN: 9781449652708

I. Workbook(s) and/or Lab Manual: None

J. Course Description: This course is a continuation of RESP 1220 and has instruction and laboratory application in adult critical care procedures such as: advance assessment in respiration of oxygen and carbon dioxide, hemodynamic monitoring, high frequency ventilation, and nitric oxide administration. The course transitions the student from the adult critical care experience to the neonatal and pediatric clinical settings focusing on infant and pediatric mechanical ventilation, ventilation techniques, CPAP, Bi-Level ventilation, nitric oxide therapy, therapeutic procedures, and equipment specific to the neonatal and pediatric setting. The course will cover neonatal and pediatric pathologies such as HMD, BPD, CHD, asthma, meconium aspiration, SIDS, and CF.

K. College-Wide Learning Outcomes:

College-Wide Learning Outcome	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	
Intercultural Knowledge and Competence	
Critical Thinking	
Information Literacy	
Quantitative Literacy	

L. Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

Outcomes	Assessments – How it is met & When it is met
1. Associate the indications, complications, hazards of arterial line monitoring	Quiz week 2, Examinations weeks 5 & 10
2. Interpret normal and abnormal hemodynamic monitoring pressures	Quiz week 2, Examinations weeks 5 & 10
3. Calculate hemodynamic monitoring values from given pressures	Quiz week 2, Examinations weeks 5 & 10
4. Operate conventional and non-conventional mechanical ventilators as they apply to the pediatric and neonatal patient	Lab check-off week 4 Quiz week 4 Examinations weeks 5 & 10
5. Associate pathology as it applies to pediatrics and neonates	Quiz weeks 2,3,4,6,7,8,9, Examinations week 5 & 10
6. Associate the indications, contraindications, hazards of ECMO, nitric oxide	Quiz week 8 & 9, Examination week 10
7. Generalize the concept of fluidics	Examination week 5
8. Apply oxygen assessment techniques	Examinations week 5 & 10

Outcomes	Assessments – How it is met & When it is met
9. Perform the following procedures: a. Adult diagnostics: hemodynamic monitoring: hemodynamic monitoring: arterial line sampling, arterical line insertion, pulmonary artery pressure measurement, thermodilution cardiac output measurement b. Cardiology testing: electrocardiography c. Neonate/Pediatric procedures: d. Patient Data: vital signs, chest assessment, patient assessment, x-ray interpretation e. oxygen therapy: nasal CPAP, oxygen hood, nasal cannula, pulse oximetry, transcutaneous monitoring f. Aerosol drug administration: metered dose inhaler via manual resuscitator, small volume nebulizer via blowby, in-line metered dose inhaler, in-line small volume nebulizer g. Bronchial hygiene: chest physiotherapy h. Suction procedures: bulb suctioning, endotracheal suctioning, nasotracheal suctioning, in-line suctioning i. Ventilatory care: ventilator setup, routine ventilator check, ventilator parameter change, surfactant replacement therapy j. Weaning from mechanical ventilation: weaning k. Patient transports: manual ventilation during transport	Check-offs weeks 2,4,6 Examination week 10

M. Topical Timeline (Subject to Change):

1. Hemodynamic monitoring:
   a. Pressures: normal & abnormal values: MAP, CVP, RV, PCWP, PAP
   b. Hemodynamic calculations, C.O., SVR, PVR, SV, Ejection fraction, pulse pressure, normal and abnormal values
2. Arterial lines: equipment, monitoring, drawing a blood sample
3. Fluidics, terms and fluidic gates
4. VD/VT ratios: equipment and performing procedure
5. 12 lead EKG: equipment and performing procedure
6. Heel Puncture: indications, contraindications, hazards, performing procedure
7. Nitric Oxide: indications, contraindications, hazards, setup and calibration of equipment
8. ECMO: indications, contraindications, hazards and equipment set up
9. Infant and Pediatric Mechanical Ventilation: indications, contraindications, hazards, monitoring and maintaining, trouble shooting
10. Neonatal/Pediatric Pathology: Croup, Epiglottitis, CHD, HMD, BPD, RSV, CDH, ROP, PPHN, Asthma, CF

N. Course Assignments:

1. Lecture/discussion
2. Lab experiments
3. Check-offs and Demonstrations
4. Videos
5. Quizzes
6. Practical and Written exams

O. Recommended Grading Scale:

NUMERIC	GRADE	POINTS	DEFINITION
93–100	A	4.00	Superior
90–92	A-	3.67	Superior
87–89	B+	3.33	Above Average
83–86	B	3.00	Above Average
80–82	B-	2.67	Above Average
77–79	C+	2.33	Average
73–76	C	2.00	Average
70-72	C-	1.67	Below Average
67–69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Poor
00-59	F	0.00	Failure

P. Grading and Testing Guidelines:

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Q. Examination Policy:

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R. Class Attendance and Homework Make-Up Policy:

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S. Classroom Expectations:

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T. College Procedures/Policies:

Important information regarding College Procedures and Policies can be found on the syllabus supplement **located at https://sharept.ncstatecollege.edu/committees/1/curriculum/SiteAssets/SitePages/Home/SYLLABUS%20SUPPLEMENT.pdf**

The information can also be found Choose an item.