North Central State College

MASTER SYLLABUS	2026-2027

A. Academic Division: Health Sciences

B. Discipline: Respiratory Care

C. Course Number and Title: RESP2490 – Practicum IV

D. Assistant Dean: Dr. Jason Tucker, Ph.D.

E. Credit Hours: 2.5
Practicum Hours: 12
Lecture: 1 hour

F. Prerequisites: RESP2310, RESP2330, RESP 2390
Co-requisites: RESP2410, RESP2450, RESP2470

G. Last Course/Curriculum Revision Date: Fall 2023 Origin date: 12/22/2010

H. Textbook(s) Title:

- *Oakes' Respiratory Care Pocket Guide*
- Author: Scot Jones, Dana Oakes
- Copyright Year: 2026
- Edition: 11th
- ISBN: 9780932887702

Neonatal/Pediatric Respiratory Care Pocket Guide

- Author: Scot Jones, Dana Oakes
- Year: 2023
- Edition: 8th
- ISBN #: 9780932887658

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

J. Course Description: This is a practicum course and is a continuation of RESP2390. The student will be assigned to a hospital 12 hours per week for 13 weeks (156 total hours) to work under the supervision of a practicum instructor. Six weeks will be spent in adult critical care and seven weeks will be spent in neonatal and pediatrics setting. This course provides a more intense look at adult mechanical ventilation focusing on the understanding of pathophysiology of the critical care patient as it applies to mechanical ventilation and critical care procedures. The student will learn to assess and troubleshoot mechanical ventilators, assess patient outcomes, analyze and apply mechanical ventilator techniques to adapt to the patient's pathophysiological needs. As a part of this practicum experience the student will perform an intubation rotation in a surgical environment under the supervision of an anesthesiologist. The course covers practical application in a pediatric hospital performing practicum procedures as they relate to the neonatal/pediatric patient including assessment, oxygen therapy, humidity/aerosol therapy, aerosolized medication delivery methods, airway management and suctioning, oximetry, apnea monitoring, conventional mechanical ventilation, CPAP, high frequency oscillation, and weaning procedures. The student may be involved in emergency medical procedures including cardiopulmonary resuscitation and the use of manual resuscitators. Seminar time is provided at campus.

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	Interaction with patients, hospital staff. Evaluated in Student evaluations weeks 8 and 16. Intercultural Knowledge and Competence VALUE Rubric
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. Collect, evaluate, and review existing data in the patients' record to assess the patient's cardiopulmonary system and make recommendations to initiate or modify therapy	S.O.A.P. rubric, daily beginning week 2 Practical examinations weeks 8 & 16
2. Perform respiratory care procedures for the adult critically ill patients to include: a. Aerosol drug administration: small volume nebulizer, metered dose inhaler, dry powder inhaler, adult inline metered dose inhaler, adult inline small volume nebulizer b. Oxygen therapy: nasal cannula, simple mask, partial rebreather mask, non-rebreather mask, air entrainment mask, high flow nasal cannula, transport with oxygen, manual ventilation with transport c. Lung expansion: incentive spirometry, intermittent positive pressure breathing d. Suction procedures: endotracheal suctioning, nasotracheal suctioning, tracheal suctioning, in-line suctioning e. Adult arterial blood: ABG sampling, ABG analysis, ABG analyzer quality assurance f. Bronchopulmonary hygiene: coughing, chest physiotherapy, mucous clearance g. Noninvasive positive pressure ventilation: noninvasive ventilator setup, noninvasive ventilator check h. Endotracheal tube/ tracheostomy care: securing artificial airway, tracheostomy care, cuff management, heat/moisture exchanger, intubation, extubation i. Resuscitation: setup and ventilation via endotracheal tube, setup and ventilation via mask, adult CPR airway and ventilation, adult CPR compressions	SOAP rubric, daily Check-offs weeks 8 & 16 Student practicum evaluation weeks 8 & 16

Outcomes	Assessments – How it is met & When it is met
3. Perform the following procedures for the adult critically ill patients to include: a. Ventilatory care: adult ventilator setup, adult routine ventilator check, adult ventilator parameter change, adult ventilator circuit change, adult ventilator graphics analysis, adult capnography b. Pathophysiology of the critically ill patient. c. Weaning from mechanical ventilation: weaning parameters, weaning d. Adult hemodynamic monitoring: arterial line sampling, pulmonary artery line sampling, pulmonary artery pressure measurement, thermodilution cardiac output measurement e. Cardiology testing: electrocardiography, cardiac catheterization, echocardiography	S.O.A.P. rubric, daily beginning week 1 Check-offs weeks 8 & 16 Practical Final week 16
4. Perform the following neonatal and pediatric critical care procedures: a. Patient data: vital signs, chest assessment, patient assessment, x-ray interpretation b. Oxygen therapy: nasal CPAP, oxygen hood, nasal cannula, pulse oximetry, transcutaneous monitoring c. Aerosol drug administration: metered dose inhaler via manual resuscitator, small volume nebulizer via blowby, in-line metered dose inhaler, in-line small volume nebulizer d. Bronchial hygiene: chest physiotherapy e. Resuscitation: manual ventilation via endotracheal tube, setup and ventilation via mask, newborn assessment/resuscitation, neonatal CPR, infant apnea monitoring f. Suction procedures: bulb suctioning, endotracheal suctioning, nasotracheal suctioning, in-line suctioning g. Ventilatory care: ventilator setup, routine ventilator check, ventilator parameter change, ventilator circuit change, surfactant replacement therapy h. Weaning from mechanical ventilation: weaning i. Patient transports: manual ventilation during transport, transport ventilation setup	Check-offs week 8 & 16 SOAP rubric, daily beginning week 2 Practical Exam Weeks 8 & 16
5. Discuss the pediatric and neonatal pathophysiology such as asthma, cystic fibrosis, IRDS, HMD, BPD, CHD, croup, epiglottitis, RSV as they relate to the critically ill patient	Student evaluation week 8 & 16 SOAP rubric, daily beginning week 2 Exam week 16
6. Discuss pharmacological intervention associated with pediatric and neonatal diseases.	S.O.A.P. rubric, daily beginning week 2 Student Evaluation week 8 & 16 Exam week 16
7. Discuss the indications, complications, monitoring and circuit of a patient receiving ECMO	S.O.A.P. rubric, daily beginning week 2 Student evaluation week 8 & 16, Exam week 16
8. Describe pulmonary diagnostic procedures associated with a children's hospital setting such as TOP Studies, PFT, SAT studies, sweat chloride test	S.O.A.P. rubric, daily beginning week 2 Student evaluation week 8 & 16 Exam Week 16

M. 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	Average
67–69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Below Average
00--59	F	0.00	Failure

N. College Procedures/Policies:

North Central State College believes that every student is a valued and equal member of the community.* Every student brings different experiences to the College, and all are important in enriching academic life and developing greater understanding and appreciation of one another. Therefore, NC State College creates an inclusive culture in which students feel comfortable sharing their experiences. Discrimination and prejudice have no place on the campus, and the College takes any complaint in this regard seriously. Students encountering aspects of the instruction that result in barriers to their sense of being included and respected should contact the instructor, assistant dean, or dean without fear of reprisal.

* *Inclusive of race, color, religion, gender, gender identity or expression, national origin (ancestry), military status (past, present or future), disability, age (40 years or older), status as a parent during pregnancy and immediately after the birth of a child, status as a parent of a young child, status as a foster parent, genetic information, or sexual orientation*

Important information regarding College Procedures and Policies can be found on the syllabus supplement located at

https://ncstatecollege.edu/documents/President/PoliciesProcedures/PolicyManual/Final%20PDFs/14-081b.pdf

North Central State College

SYLLABUS ADDENDUM

Academic Division: Health Sciences **Discipline:** Respiratory Care
Course Coordinator: Nychole Rose

Course Number: RESP 2490 **Course Title:** Practicum IV
Semester / Session: Fall 2026 **Start / End Date:** 8/17/2026-12/11/2026

Instructor Information

Name: Nychole Rose BSRT, RCP/RRT

Clinical instructor per site **Phone Number:** 419-755-4825
E-Mail Address **nrose@ncstatecollege.edu**
Office Location: HS-326 **Student Hours:** Monday 8-12, 1:30-2:30

I. Topical Timeline (Subject to Change):

Weeks	Topics
1	Orientation/Patient Assessment for Adult Acute Care setting
2	Continuous oxygen therapy for the critical patient
3	Intermittent therapy for the critical ill patient
4	Adult/ Pediatric Ventilation, indications, initiation, maintaining mode, weaning
5	Artificial Airways
6	Waveform graphics and analysis
7	Trouble shooting equipment
8	Monitoring therapy and modifying care
9	Medication intervention
10	EKG's
11	Hemodynamic Monitoring
12	Chest tubes
13	Intubation/Extubating
14	Airway management, airways and suctioning
15	ABG puncture and analysis
16	CPaP, Bi-Level

Topics

In the Neonatal/Pediatric Setting:
• Patient Assessment
• Neonatal/pediatric mechanical ventilation, indications, initiation, maintaining, mode, weaning
• Trouble shooting equipment
• Monitoring therapy and modifying care
• Medication intervention and administration
• Pathology: BPD, CF, Asthma, HMD, Meconium Aspiration, CHD
• ECMO: indications, contraindications, circuit, monitoring, weaning
HFOV: indications, contraindications, hazards, initiation, maintaining, weaning
• Nitric Oxide: administration indications, contraindications, hazards, initiation, maintaining, weaning
• Oxygen therapy for the neonate/pediatric setting: indications, contraindications, hazards, initiation, maintaining, mode, weaning

• Intermittent Therapy for the neonate/pediatric setting: indications, contraindications, hazards, initiation, maintaining, mode, weaning
CPAP, Bi-level, SIPAP
• PECO2, TcPO2, TcCO2 monitoring
• ABG, CBG, UAC, VBG analysis
• SaO2, SVO2 monitoring

II. Course Assignments:

1. Daily S.O.A.P. (subjective, objective, assessment, plan) charting
2. Direct hands-on patient care
3. Additional assignments and projects will be completed and shared with the class such as: laboratory test and results, definitions of medical terms, diagnostic testing, medications, and pathology.
4. Additional assignments and projects are to be completed and shared with the class.
5. Collect 15 ECG rhythm strips and analyze
6. Research assigned medication and present to the practicum group
7. The Other Side of the Tube@ Interview a patient from the practicum site who was successfully weaned from mechanical ventilation. Write (typed) a paper describing the patient's perspective of the experience.

III. Grading and Testing Guidelines:

1. SOAP
   • See SOAP rubric

2. Student Evaluation
   a. Done per clinical instructor in Trajecsys

IV. Examination Policy:

1. Exams to be completed on assigned date or as instructor discretion
2. The reasons for which a student will be excused from taking an examination
   a. Hospitalization (with documented verification)
   b. Death in the immediate family (with documented verification)
   c. Personal illness or illness in immediate family - (doctor's excuse required).

V. Class Attendance and Homework Make-Up Policy:

A student may not miss TWENTY percent (20%) of the clinical time for whatever reason, excused or unexcused, the student CAN NOT meet the objectives of the course and the highest grade the student **will receive is a D+**. Defined as **32 hours** for RESP 2390. Attendance penalty guidelines for **excused absence**: a. first 4 hours no penalty, b. each additional 4 hours missed there will be -3% deducted from the student's final grade. Penalty for **unexcused absence:** 1% drop in grade for each hour or portion of an hour of unexcused absence. Missed hours will accumulate toward the 20% missed clinical time.

Students should plan with their clinical instructor to make up any missed clinical time. Failure to do so will result in a reduction of grade. If an arrangement between the student and clinical instructor cannot be reached, an additional assignment may be arranged at the discretion of the Director of Clinical Education or course coordinator.

VI. Classroom Expectations:

You are expected to arrive at the clinical site and report to the designated meeting location prior to the scheduled start time. If you are going to be late or absent you are to contact the Clinical Instructor ASAP as well as Clinical Coordinator, failure to do so will result in an Unexcused Absence. You are required to wear scrubs and have necessary equipment (stethoscope, scissors, pen, etc.) with you.

See student handbook for further details regarding required clinical supplies and uniforms.