

COURSE SYLLABUS

LAST REVIEW	Spring 2021
COURSE TITLE	Technical Intervention IV
COURSE NUMBER	RSCR 0275
DIVISION	Health Professions
DEPARTMENT	Respiratory Therapy
CIP CODE	51.0908
CREDIT HOURS	1
CONTACT HOURS/WEEK	Class: 1
PREREQUISITES	None
COURSE PLACEMENT	This course is part of a selective admission program. Students must be admitted to the Respiratory Therapy program to enroll in this course.

COURSE DESCRIPTION

This is a comprehensive Respiratory Therapy course beyond the introductory and foundational level. Content from previous classes in the Respiratory Therapy program sequence is applied, expanded, added to, and extended to scenarios, questions, discussions, and simulations in this class. Key content areas of the course are the NBRC Therapist Multiple Choice Exam Detailed Content Outline, critical care, mechanical ventilation, and disease management.

PROGRAM ALIGNMENT

This course is part of a program aligned through the Kansas Board of Regents and Technical Education Authority. For more information, please visit:

https://kansasregents.org/workforce_development/program-alignment

PROGRAM LEARNING OUTCOMES

1. Formulate the knowledge and critical reasoning skills necessary to pass the National Board for Respiratory Care Therapist Multiple Choice Exam.
2. Execute the variety of assessment and intervention skills necessary to provide respiratory care in the clinical setting at the entry Registered Respiratory Therapist level.
3. Integrate professional behaviors necessary at the entry Registered Respiratory Therapist level.

TEXTBOOKS

<http://kckccbookstore.com/>

METHODS OF INSTRUCTION

A variety of instructional methods may be used depending on content area. These include but are not limited to lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, panels, conferencing, performances, and learning experiences outside the classroom.

Methodology will be selected to best meet student needs.

COURSE OUTLINE

- I. Apply respiratory care comprehensively at the NBRC entry level based on the NBRC Therapist Multiple Choice Exam Detailed Content Outline.
 - A. Patient data evaluation and recommendations
 - B. Troubleshooting and Quality Control of Equipment, and Infection Control
 - C. Initiation and modification of interventions

- II. Clinical data for critical care.
 - A. Airway care
 - B. Ventilation; graphics, blood gases
 - C. Oxygenation
 - D. Lung protective strategies; ARDS management
 - E. Troubleshooting/responding to ventilator alarms
 - F. Hemodynamic monitoring
 - G. Liver enzymes; ALT, AST
 - H. Cardiac biomarkers; troponin, CK, lactate dehydrogenase
 - I. Pharmacotherapy; sedatives, analgesics, prostacyclins, anti-arrhythmic, pressors
 - J. Scales; sedation, pain, coma, GCS,
 - K. Mechanical ventilation weaning; SBT, parameters, RSBI, MVV, P/F ratio
 - L. Special procedures; intubation/extubation, chest tubes and drainage systems, bronchoscopy
 - M. Pulmonary gases; heliox, iNO, F_ENO, CO₂
 - N. Imaging studies; radiographs, CT, PET, ultrasound
 - O. Utilize evidence-based practice; ARDSNet, NAEPP, GOLD
 - P. Care in high-risk situations, rapid response teams, resuscitations, patient transport intra-hospital and inter-facilities by land or air

- III. Sub-acute and home mechanical ventilation.
 - A. Criteria; patient selection, site selection, equipment selection, care providers
 - B. Modes of ventilation; non-invasive, invasive, negative pressure, positive pressure

COURSE LEARNING OUTCOMES AND COMPETENCIES

Upon successful completion of this course, the student will:

- A. Apply respiratory care comprehensively at the NBRC entry level based on the NBRC Therapist Multiple Choice Exam Detailed Content Outline.
 - 1. Achieve the course cut score for patient data evaluation and recommendations on a comprehensive mock Therapist Multiple Choice Exam.
 - 2. Achieve the course cut score for troubleshooting and quality control of equipment, and infection control on a comprehensive mock Therapist Multiple Choice Exam.
 - 3. Achieve the course cut score for initiation and modification of interventions on a comprehensive mock Therapist Multiple Choice Exam.

- B. Evaluate and recommend clinical data for critical care.
 - 4. Evaluate and recommend clinical data for airway care.
 - 5. Evaluate and recommend clinical data for ventilation.
 - 6. Evaluate and recommend clinical data for oxygenation.
 - 7. Evaluate and recommend clinical data for lung protective strategies.
 - 8. Evaluate and recommend clinical data for troubleshooting/responding to ventilator alarms.
 - 9. Evaluate and recommend clinical data for hemodynamic monitoring.
 - 10. Evaluate and recommend clinical data for ventilation waveforms and scales.
 - 11. Evaluate and recommend clinical data for liver enzymes.
 - 12. Evaluate and recommend clinical data for cardiac enzymes.
 - 13. Evaluate and recommend clinical data for pharmacotherapy.
 - 14. Evaluate and recommend clinical data for sedation, pain, and coma scales.
 - 15. Evaluate and recommend clinical data for mechanical ventilation weaning.
 - 16. Evaluate and recommend clinical data for special procedures.
 - 17. Evaluate and recommend clinical data for exhaled gas analysis.
 - 18. Evaluate and recommend clinical data for ultrasound/ echocardiography.
 - 19. Evaluate and recommend clinical data for medical emergency team/rapid response team.
 - 20. Evaluate and recommend clinical data for patient transport.
 - 21. Evaluate and recommend clinical data for disaster management.

- C. Evaluate and recommend clinical data for sub-acute and home mechanical ventilation.
 - 22. Evaluate and recommend clinical data for patient, site, equipment, and provider criteria for sub-acute and home mechanical ventilation.
 - 23. Evaluate and recommend clinical data for modes of ventilation for sub-acute and home mechanical ventilation.

ASSESSMENT OF COURSE LEARNING OUTCOMES AND COMPETENCIES

Student progress is evaluated through both formative and summative assessment methods. Specific details may be found in the instructor's course information document.

COLLEGE POLICIES AND PROCEDURES

Student Handbook

<https://www.kckcc.edu/files/docs/student-resources/student-handbook-and-code-of-conduct.pdf>

College Catalog

<https://www.kckcc.edu/academics/catalog/index.html>

College Policies and Statements

<https://www.kckcc.edu/about/policies-statements/index.html>

Accessibility and Accommodations

<https://www.kckcc.edu/academics/resources/student-accessibility-support-services/index.html>.