

COURSE SYLLABUS

LAST REVIEW	Spring 2021
COURSE TITLE	Perinatal Pediatrics
COURSE NUMBER	RSCR 0290
DIVISION	Health Professions
DEPARTMENT	Respiratory Therapy
CIP CODE	51.0908
CREDIT HOURS	2
CONTACT HOURS/WEEK	Class: 2
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

Students learn about cardiopulmonary conditions unique to infants and children. Clinical emphasis is on treating airway emergencies and cardiopulmonary life support system. This class covers perinatal and child anatomy, physiology, assessment, diagnosis and treatment. Evidence-based disease management concepts are utilized.

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. Cardiopulmonary conditions and disorders of the neonate and pediatric population

- A. Fetal growth & development
- B. Transition from fetal circulation
- C. Risk Factors for the Neonate
 - 1. Related to the mother
 - 2. Related to the pregnancy
 - 3. Related to labor and delivery
- D. Transient Tachypnea of the Newborn
 - 1. Description
 - 2. Signs & symptoms
 - 3. Common factors
 - 4. Contributing factors
 - 5. Interventions
- E. Acute Respiratory Distress Syndrome
 - 1. Description
 - 2. Signs & symptoms
 - 3. Morbidity & mortality
 - 4. Common factors
 - 5. Contributing factors
 - 6. Interventions
- F. Bronchopulmonary Dysplasia
 - 1. Description
 - 2. Signs & symptoms
 - 3. Morbidity & mortality
 - 4. Common factors
 - 5. Contributing factors
 - 6. Interventions
- G. Diaphragmatic Hernia
 - 1. Description
 - 2. Signs & symptoms
 - 3. Common factors
 - 4. Contributing factors
 - 5. Interventions

- H. Sudden Infant Death Syndrome
 - 1. Description
 - 2. Signs & symptoms
 - 3. Common factors
 - 4. Contributing factors
 - 5. Interventions
- I. Foreign Body Airway Obstruction
 - 1. Assessment
 - 2. Partial vs full
 - 3. Interventions
 - 4. Adult/pediatric structure differences
- J. Asthma
 - 1. Description
 - 2. Signs & symptoms
 - 3. Common factors
 - 4. Contributing factors
 - 5. Interventions
- K. Cystic Fibrosis
 - 1. Description
 - 2. Signs & symptoms
 - 3. Morbidity & mortality
 - 4. Common factors
 - 5. Contributing factors
 - 6. Interventions
- L. Bronchiolitis
 - 1. Description
 - 2. Signs & symptoms
 - 3. Common factors
 - 4. Contributing factors
 - 5. Interventions
- M. Meningitis
 - 1. Description
 - 2. Signs & symptoms
 - 3. Common factors
 - 4. Contributing factors
 - 5. Interventions
- N. Pneumothorax
 - 1. Assessment
 - 2. Description
 - 3. Signs & symptoms
 - 4. Common factors
 - 5. Contributing factors
 - 6. Interventions

O. Laryngeotracheobronchitis

1. Description
2. Signs & symptoms
3. Common factors
4. Contributing factors
5. Interventions

P. Epiglottitis

1. Description
2. Signs & symptoms
3. Common factors
4. Contributing factors
5. Interventions

Q. Congenital Cardiac Disorders

1. Description
2. Signs & symptoms
3. Common factors
4. Contributing factors
5. Interventions

R. Neuromuscular Diseases

1. Description
2. Signs & symptoms
3. Common factors
4. Contributing factors
5. Interventions

II. Assessment of Neonates and Children

- A. Vital signs
- B. Physical assessment
- C. Complete blood counts
- D. Electrolytes
- E. Arterial blood gases
- F. Transcutaneous blood gases
- G. Chest x-rays & transillumination
- H. APGAR Scoring
- I. New Ballard Scoring
- J. Silverman Scoring
- K. Pneumographs
- L. Pulmonary functions

III. Cardiopulmonary Interventions

- A. Airway care
- B. Resuscitation
- C. Oxygenation
- D. Ventilation

- E. Surfactant therapy
- F. Nitric oxide
- G. Extracorporeal membrane oxygenation
- H. Aerosolized medication
- I. Chest physiotherapy
- J. Monitoring
- K. Transports

COURSE LEARNING OUTCOMES AND COMPETENCIES

Upon successful completion of this course, the student will:

- A. Evaluate cardiopulmonary conditions and disorders of the neonatal/pediatric population.
 - 1. Describe normal fetal growth and development.
 - 2. Evaluate risks of prematurity.
 - 3. Evaluate and treat Transient Tachypnea of the Newborn.
 - 4. Evaluate and treat infant respiratory distress syndrome, ARDS.
 - 5. Evaluate and treat Bronchopulmonary dysplasia, BPD.
 - 6. Evaluate and treat cystic fibrosis, and diaphragmatic hernia.
 - 7. Evaluate and assess Foreign Body Airway Obstruction.
 - 8. Evaluate and treat Epiglottitis and Laryngotracheobronchitis.
 - 9. Evaluate and treat bronchiolitis.
- B. Evaluate and perform physical inspection on the neonatal/pediatric population.
 - 10. Evaluate and perform vital signs.e.g. heart rate, blood pressure, respiratory rate.
 - 11. Evaluate and perform chest inspection e.g. chest configuration, breathing pattern and work of breathing.
 - 12. Interpret arterial blood gas results.
 - 13. Assess and interpret radiographic studies (e.g. chest, airway)..
 - 14. Assess and interpret APGAR scores
 - 15. Determine gestational age of the neonate.
 - 16. Recognize and modify positions of tubes and catheter.
- C. Apply neonatal and pediatric cardiopulmonary life support systems.
 - 17. Apply emergency protocols of neonatal resuscitation program, NRP.
 - 18. Apply emergency protocols of pediatric advanced life support, PALS.
 - 19. Evaluate foreign body airway obstruction, FBAO.
 - 20. Evaluate laryngotracheobronchitis, croup.
 - 21. Evaluate epiglottitis.
- D. Recommend and modify cardiopulmonary interventions.
 - 22. Assess and maintain a patient airway.
 - 23. Initiate and perform CPR.
 - 24. Assess oxygenation and ventilation status in the neonatal/pediatric.
 - 25. Initiate and administer aerosol therapy to the neonatal/pediatric population.

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>.