## SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

## **ACADEMIC AFFAIRS**

Course Number:	RSPC 409	Department:	Respiratory Care		
Course Title:	Neonatal/Pediatric Care	Semester:	Spring	Year:	1999

## **Objectives/Competencies**

Course Objective	Competencies	
1. Unit 1, Module A: Embryologic Development of the cardiopulmonary system.	<ol> <li>Describe stages of lung development.</li> <li>Describe the function of amniotic fluid.</li> <li>Describe surfactant production.</li> <li>Describe the development of the heart.</li> </ol>	
2. Module B: Assessment of fetal growth and development.	<ol> <li>Define amniocentesis.</li> <li>Describe methods of measuring fetal heart rate.</li> <li>Identify high-risk pregnancy factors.</li> <li>Define maternal estriol levels.</li> <li>Explain the implications of mecomium stained amniotic fluid.</li> </ol>	
<ol> <li>Module C: Labor, delivery and physiologic changes after birth.</li> </ol>	<ol> <li>List events that make up the birth process.</li> <li>Describe the different birth presentations.</li> <li>Describe placenta previa.</li> <li>Define high-risk deliveries.</li> <li>List factors responsible for the first breath.</li> </ol>	

Course Objective		Competencies		
4.	Unit 2, Module A: Techniques of resuscitation and	1. List factors that can lead to asphyxia.		
	stabelization.	2. Describe ABC's of resuscitation.		
		3. Describe APGAR scoring.		
		4. List drugs used for resuscitation.		
		5. Describe umbilical artery catheterization.		
		6. Describe serum fetal and neonatal glucose levels.		
5.	Module B: Assessment of the neonatal and pediatric	1. List anatomic and physiologic differences between infant		
	patient.	and adult.		
		2. Describe the neonatal physical exam and nomograms		
		used.		
		3. Describe assessment of pediatric patient.		
		4. Understand equipment used for pulmonary function		
6.	Module C: Interpretation of chest X-rays.	testing.		
		1. Describe the appearance of different neonatal disorders on		
		a chest X-ray.		
		2. Describe the steps used to evaluate and interpret a chest		
7.	Module D: Respiratory care procedures.	X-ray.		
		1. List indications and contraindications for airway clearance		
		therapy.		
		2. Describe procedure for CPT.		
		3. Discuss aerosol delivery and devices used.		
		4. Describe indications for oxygen therapy and delivery		
8.	Module E: General considerations.	devices used.		

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	<ol> <li>Discuss thermoregulation of the neonate.</li> <li>Describe the pathophysiology as it relates to heat and humidity.</li> </ol>
9. Module F: Pharmacology.	<ol> <li>Describe fluid and electrolyte balance.</li> <li>Understand transfer of drugs across the placenta.</li> <li>Understand routes of absorption and methods of distribution.</li> <li>Describe the drugs used to treat cardiopulmonary conditions.</li> </ol>
10.Module G: Assessment of oxygenation.	<ol> <li>Describe effects of maternal drug abuse on the fetus.</li> <li>List the indications for ABG analysis.</li> <li>Describe techniques to obtain ABG analysis.</li> <li>Describe TCM monitoring.</li> <li>Describe pulse oximeter monitoring.</li> </ol>