



**JACKSON COMMUNITY COLLEGE
RESPIRATORY CARE PROGRAM**

RES 210

Perinatal and Pediatric Respiratory Care

*LECTURE and LAB SYLLABUS
Spring Semester 2018*

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Pediatric Intensive Care



Outline of Instruction

Division:	Allied Health	Area:	Respiratory Care
Course Number:	RES 210	Course Name:	Perinatal and Pediatric Respiratory Care
Prerequisite:	RES 120 Respiratory Care Techniques III RES 205 Clinical Practice III		
Credits:	3		

Course Description/Purpose

This classroom and laboratory course covers topics including fetal growth and development, patient assessment, commonly encountered equipment, and the clinical management of common neonatal/pediatric diseases and conditions.

Major Units

1. Fetal Development
2. Fetal to Neonatal Transition, and High Risk Deliveries
3. Neonatal Resuscitation
4. Airway Management of the Neonate
5. Assessment of the Neonate
6. Cardiopulmonary Diseases of the Neonate
7. Neonatal Cardiopulmonary Management
8. Common Pediatric Diseases
9. Congenital Heart Defects
10. Oxygen and Aerosol Therapy for Neonatal and Pediatric Patients
11. Respiratory Medication Delivery
12. Bronchial Hygiene Techniques for Neonatal and Pediatric Patients
13. CPAP Types and Application
14. Neonatal-Pediatric Ventilators
15. Neonatal-Pediatric Ventilation Techniques

Laboratory Assignments:

1. Neonatal Resuscitation
2. Oxygen / Aerosol Therapy
3. Medication Delivery and Bronchial Hygiene, including Suctioning
4. CPAP and Neonatal - Pediatric Ventilator Operation
5. Neonatal - Pediatric Ventilator Management
6. Advanced Neonatal - Pediatric Practices
7. Lab Practical Exam

Educational/Course Outcomes

The course goals and objectives incorporate specific General Education Outcomes (GEOs) and Essential Competencies (ECs) established by the JC Board of Trustees, administration, and faculty. These goals are in concert with four-year colleges, universities, and reflect input from the professional communities we serve. GEOs and ECs guarantee students achieve goals necessary for graduation credit, transferability, and professional skills needed in many certification programs. The course objectives addressed in this class include the following:

Cognitive Each student will be expected to:

- o Compare and contrast problems in the care of the high risk newborn, including thermoregulation, RDS, BPD, pulmonary dysmaturity, and other disorders. **EC1**

Academic Honesty Policy: If there is any suspicion of academic dishonesty, JC's Academic Honesty Policy will be followed and appropriate action will be taken, up to and including assigning a **failing grade** for the paper, project, report, exam, or the course itself (whichever is deemed necessary). To see the policy, visit: <https://www.jccmi.edu/wp-content/uploads/StudentCodeOfConduct.pdf>.

Incompletes Policy: <https://www.jccmi.edu/wp-content/uploads/2015/11/1003.pdf>

Classroom expectations: There are three expectations that will be enforced in the classroom:

1. First, attendance is very important to successfully learn and retain lecture information. Therefore, attendance in class all day, every day is expected and encouraged. According to the **JC Respiratory Care Program Student Handbook**, student

responsibilities include: “taking an active role in the learning process” and one cannot do this if you are not there and participating in discussion and class activities. The student will be responsible for contacting the instructor to obtain any make up material needed as a result of the absence. In order to facilitate preparation of such materials, the student will probably best contact the instructor as much in advance as possible via email or phone prior to class time if there is any expected absence or any makeup material needed. Then the student will need to contact the instructor after the absence to obtain any missing materials. As for notes or other content covered during class, it is the student’s responsibility to gather such material, so going to the instructor and asking for any handouts or materials is the student’s responsibility.

2. Also, having a fellow student from whom the student can get such notes is vital in the event of an absence. In addition, the **JC Respiratory Care Program Student Handbook** will be followed closely pertaining to classroom behavior. As stated in the Handbook, “Responsibilities borne by the student in maintaining an optimal learning environment include treating other students, instructors, respiratory therapists, and co-workers (e.g. nurses) with the respect afforded to fellow health care professionals.” Mutual respect between the instructor and all students is expected at all times. Disrespect and other disruptive behaviors which inhibit the teaching and learning to which the entire class is entitled will not be tolerated. Any incidents will be handled in keeping with the disciplinary policy spelled in the **JC Respiratory Care Program Student Handbook**, and appropriate action taken up to and including **class expulsion**.
3. Thirdly, assignments or take home quizzes are expected to be handed in on the appropriate due date (which shall be **one week** from when they are given out in class). They may be handed in any time on the due date before the end of class with no penalty. In general, assignments that are late will be subject to a late penalty (5 pts/day deducted from the final grade for that assignment, for up to 8 days late to give a maximum of –40 pts for turn-ins late by one week; assignments turned in later than 8 days will lose an additional 10 pts/week).

Getting Extra Help:

It can be very frustrating when one does not understand concepts and is unable to complete homework assignments. However, there are many resources available to help with the study of respiratory care.

- **CENTER FOR STUDENT SUCCESS:** Tutors (plus additional services for academic success) can be accessed by calling **796-8415** or by stopping by the **Center for Student Success, Bert Walker Hall, Room 138**. Arrange to get regular assistance from a tutor. Students requiring special assistance (including those affected by the Americans with Disabilities Act) should contact the Center for Student Success. This is the first step in acquiring the appropriate accommodations to facilitate your learning.
- **STUDY GROUP:** Find a study partner or a study group. Sometimes it helps to work through problems with another person.
- **JETNET:** There will be a discussion board posted there where students can ask questions of the instructor and/or the group. That way, students can get help at a time when it is needed as the posts remain up there.
- **CELL PHONE/TEXT MESSAGE:** The best and quickest way to get a hold of me (besides attending class, of course).
- **EMAIL:** The best way to send more complex messages and questions.
- **ONLINE HELP SITES:** Consult one of the many ancillaries and additional study resources available at the many websites available. These have problems worked out and plenty of other help too. Links will be added up in JetNet.
- **Redo problems** from tests and homework assignments, particularly ones that you got wrong or have trouble understanding. Remember that you must crawl before you can walk. Similarly, you must have a good handle on the basics of respiratory care before you can master the advanced concepts.

WEEKLY SCHEDULE

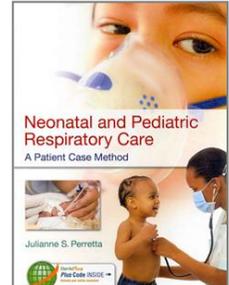
Lecture	Laboratory	Office hours
Fri. 9:00 am – 12:38 pm	Fri. 1:30 pm – 03:48 pm	By appointment

**** Please note: Lecture time may run into lab time; there may be an introduction to the lab at the end of the lecture time.**

REFERENCE MATERIAL: Textbook Zero: All texts are available in digital format from the book store / many online sources.

Required Texts:

1. Neonatal and Pediatric Respiratory Care: A Patient Case Method, Julianne Perretta MEd, RRT-NPS
ISBN-13: 978-0-8036-2831-1 ©2014 Hardback 608 pages
2. Lecture syllabus
3. Class handouts

EVALUATION

If an accommodation is needed due to a documented disability—physical, learning, or otherwise—contact the Center for Student Success in Walker Hall (796-8415). Accommodations may be provided depending on the disability.

Course points are derived from unit quizzes and exams, a lab score, and a comprehensive final exam. Most testable material for unit and final exams is listed in unit objectives, lab objectives and questions, and the oral review questions from relevant task analyses, but can also be based on relevant review questions from all prior terms, and may include additional material as covered in class outlines and lecture.

The tentative system for evaluation will consist of:

Exam:	70%
Lab:	20%
Clin. Sims:	10%

A no show/no call for any scheduled or announced exam/quiz may result in a test grade of zero. Notification of a desire to schedule a make-up test is to be received prior to the time of the original exam to be routinely eligible for a makeup exam. I may be contacted at 517-812-0079. **By course policy, all first make-up exams lose 8 points from the final grade, a subsequent make-up exam loses 16 points, and a third requested make-up loses 24 points.**

Cell phones are to be set so as **not to interrupt or disrupt normal classroom communications**; i.e., no cell phone ringing should be detectable by classroom faculty or students. For each incidence of detectable cell phone activation, 5 points will be deducted from the student's final total points earned. You may excuse yourself if an urgent call is expected, but your phone should be set on vibrate or turned off. Please do not abuse this privilege.

No texting is permitted in class or lab unless you are on break. For each incidence of texting noted, 5 points will be deducted from the student's final total points earned.

GRADING

To pass RES 210 the final course average score must be $\geq 76\%$.

Grading Scale for All Respiratory Care Courses:

4.0 = 93 - 100	2.5 = 80 - 83	1.0 = 68 - 72
3.5 = 89 - 92	2.0 = 76 - 79	0.5 = 64 - 67
3.0 = 84 - 88	1.5 = 73 - 75	0.0 = Below 64

Date	Lecture Contents and Testing
May 25	Unit 1: Embryonic Development of the Cardiopulmonary System Unit 2: Assessment of Fetal Growth and Development
June 1	Unit 3: Labor and Delivery (Transition and Adaptation) Unit 4: Resuscitation and Stabilization
June 8	<i>Exam on Units 1 – 4</i> Unit 5: Assessment of the Neonatal Patient Unit 6: Continuing Care of the Neonate
June 15	No Class – ACLS Accommodations
June 22	Unit 7: Respiratory Pharmacology (Neonatal-Pediatric) Clin Sims 1st round Due
June 29	Unit 8: Assessment of Oxygenation and Ventilation
July 6	<i>Exam on units 5-8</i> Unit 9A: Premature Lung Diseases Unit 9B: Complications Associated with Prematurity
July 13	Unit 9C: Newborn Lung Disease Unit 10: Persistent Perinatal Illness (Congenital Anomalies) Clin Sims 2nd round Due
July 20	<i>Exam on units 9-10</i> Unit 11: Pediatric Respiratory Diseases
July 27	Unit 12: Latest Trends in Neonatal and Pediatric Ventilation
August 3	Unit 13: Using Graphics to Fine Tune Ventilation Clin Sims – Final Chance
August 10	<i>Final Exam on units 11-13</i> (not cumulative)

Date	Laboratory Contents
May 25	No Lab
June 1	Neonatal Resuscitation
June 8	Oxygen and Aerosol Delivery Devices Delivery of Respiratory Medications
June 15	No Class – ACLS Accommodations
June 22	Airway Clearance Techniques CPAP
June 29	Conventional Mechanical Ventilation
July 6	Conventional Mechanical Ventilation
July 13	Conventional Mechanical Ventilation
July 20	Conventional Mechanical Ventilation
July 27	High Frequency Oscillatory Ventilation
August 3	Conventional Mechanical Ventilation
August 10	Lab Practical

Clinical Simulations:

2 yo boy in Respiratory Distress
 Newborn Baby in Labor and Delivery
 7 yo male Outpatient in Respiratory Distress
 Cyanotic Preterm Infant in Respiratory Distress
 Preterm Infant on CPAP
 5 yo girl with Retained Secretions
 Term Neonate Requiring High FiO₂
 18 mo boy with Cough and Wheezing