



## Perinatal and Pediatric Respiratory Care

RES 210.02

Spring 2021

**Number of Credits:** 3

**Office Phone:** (517) 796-8551

**Days Class Meets:** Monday

**Contact Email:** parkersarahg@jccmi.edu

**Meeting Times:** Monday 1:00 pm – 4:00 pm

**Virtual Office Hours:**

**Mon - Thur:** 9:00am – 4:00pm

*Additional by virtual appt*

**Location:** HLC 204

**Instructor:** Sarah Parker, MAOM, RRT, RRT-NPS

**Online:** JetNet course

### Course Description

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.

### Prerequisites

RES 120 Respiratory Care Techniques III

RES 205 Clinical Practice III

### Course Goals

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 (EC 1):** Each student will be expected to **Compare and contrast problems in the care of the high risk newborn, including thermoregulation, RDS, BPD, pulmonary dysmaturity, and other disorders.**

## Course Objectives

### 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

**Detailed objectives will be distributed during the course to align with these general objectives.**

## Textbooks/Reference Materials

### Recommended Texts:

1. Neonatal and Pediatric Resp. Care, 1<sup>st</sup> ed., Perretta; FA Davis, 2014, ISBN-13: 978-0-8036-2831-1.
2. Lecture syllabus, unit outline, class handouts and supplements.
3. RT Board Review

## Follett Access

- Please [review the cost of your required materials](#) to determine the best option for you to purchase your materials.

### Spring 2021 Opt-Out Dates

Opt-out dates are determined by a student's schedule and earliest start date:

| Class Starts On | Opt Out Date  |
|-----------------|---------------|
| May 10, 2021    | May 13, 2021  |
| May 24, 2021    | May 27, 2021  |
| June 7, 2021    | June 10, 2021 |
| June 15, 2021   | June 18, 2021 |
| June 21, 2021   | June 24, 2021 |
| June 28, 2021   | July 1, 2021  |
| July 6, 2021    | July 9, 2021  |

- For more information on the Follett ACCESS Program, you can view the [view the frequently asked questions](#). If, after reviewing the costs, you choose to opt out, you may do so here: [www.jccmi.edu/optout](http://www.jccmi.edu/optout). Please note your opt out selection is for your entire semester schedule. You cannot opt out and opt in to individual courses. And you must opt out by the due date for your first class.

If you have questions about materials, please contact the Jackson College Follett bookstore at [jackson@bkstr.com](mailto:jackson@bkstr.com). For account billing questions, please contact the Jackson College Cashier at [jccashier@jccmi.edu](mailto:jccashier@jccmi.edu).

## Expected Time Commitment:

For each credit hour in this course, the student is expected to put in a minimum of three hours of study time. Use your time management skills to plan for a minimum of six hours each week. The best way to utilize your time is to set up a schedule in which you are participating early in the week and many times throughout the week (see discussion board requirements below). New weekly assignments will appear every Monday. To keep everyone together as we travel down the online road there will be no jumping ahead.

## Ground Rules for Online Communication & Participation:

- Online threaded discussions are public messages, and all writings in this area will be viewable by the entire class or assigned group members.
- Posting of personal contact information is discouraged (e.g. telephone numbers, address, personal website address).
- Online Instructor Response Policy: I will check email frequently and will respond to course-related questions within 24 hours.
- Observation of "Netiquette": All your online communications need to be composed with fairness, honesty, and tact. Spelling and grammar are very important in an online course. Your level of professionalism has a direct correlation to the content you post.
  - Grammarly, is a free tool available to assist you during your online journey.
- Two words: **REMEMBER HIPPA**. Make sure never to identify patients or employees of your institution by name or title when commenting on your clinical practice experience. **The intent is that your experiences will be a valuable asset to this class – share them wisely.**

## Guidelines for a Productive Discussion

- The discussion board is your space to interact with your peers related to current topics or responses to your peer's statements. It is expected each student will participate in a mature and respectful fashion.
- Participate actively in the discussions, having completed the readings, and thought about the issues.
- Pay close attention to what your classmates write in their online comments. Ask clarifying questions, when appropriate. These questions are meant to probe and shed new light, not to minimize or devalue comments.
- Think through and reread your comments before you post them.
- Assume the best of others in the class and expect the best from them.
- Value the diversity of the class. Recognize and value the experiences, abilities, and knowledge each person brings to class.
- Your posts should be more than four sentences and offer a different perspective, provide clarification, or provide a resource or new data.

## Discussion Board Participation

It is necessary, for students to actively participate with each other and the instructor. You are required to post a minimum of 2 times on 2 different days each week. Please review the discussion board rubric to maximize your points with meaningful participation.

## Grading Procedure (Lecture Portion of Class):

Course points are derived from unit exams, quizzes and assignments, a lab score, and a comprehensive final exam. Most testable material for unit and final exams is listed in unit objectives, but can also be based on relevant material from other classes in this term, and may include additional material as covered in class outlines and lecture. Additional quizzes, assignments, case studies or exams may be assigned in addition to those scheduled.

The system for evaluation will consist of:

- Exams: 60%
- Labs: 30%
- Quizzes/Assignments: 10%

## Exam Process

**All exams will open on Monday at 00:01 and must be completed by Thursday at 23:59 pm.** If you are unable to take the exam during the scheduled week, notify me immediately for other arrangements. I may be notified directly by email or by phone via voice-mail message at (517) 812-0079. If you miss the exam day due to any reason, it will remain opened one extra day and you will receive 50% of the grade earned.

All exams are timed. The total time for each exam will be determined by the number of questions on the exam; you will receive two minutes per question. Prior to each exam, the time limit will be displayed. The questions will be randomized and will only be open for one single attempt. **Mobile devices are not recommended for taking tests or submitting assignments.**

## Respondus

To protect the fairness and integrity of the exams, students will be required to take exams using Respondus Lockdown Browser and Monitor. This is an online test proctoring software that requires a download to your computer. Training and practice of Respondus technology will be provided in advance of the first exam. A Mac or PC that has a webcam and microphone is required to use Respondus. If you do not have this technology, please contact your instructor right away. Students are expected to complete the Respondus Practice quiz on time. This is to give our IT department time to help troubleshoot issues before exam 1 begins. Failure to complete the Respondus quiz on time may result in instructor-initiated drop.

Students will be expected to complete an evaluation of the course on-line in JetNet at the conclusion of the semester.

## Grading Scale for All Respiratory Care Courses

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

| GPA | GRADE RANGE   | GPA | GRADE RANGE |
|-----|---------------|-----|-------------|
| 4.0 | 93-100%       | 1.5 | 73-75%      |
| 3.5 | 89-92%        | 1.0 | 68-72%      |
| 3.0 | 84-88%        | 0.5 | 64-67%      |
| 2.5 | 80-83%        | 0.0 | 0-64%       |
| 2.0 | <b>76-79%</b> |     |             |

## Academic Honesty Policy

If I suspect you of academic dishonesty, I will follow JC's Academic Honesty Policy and take appropriate action up to and including assigning a failing grade for the paper, project, report, exam, or the course itself (whichever I deem necessary). To see the policy, visit: <https://www.jccmi.edu/wp-content/uploads/StudentCodeOfConduct.pdf>.

Academic Honesty is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

**Plagiarism is defined as the failure to give credit for the use of material from outside sources.**

**Plagiarism includes but is not limited to:**

- Submitting other's work as your own
- Using data, illustrations, pictures, quotations, or paraphrases from other sources without adequate documentation
- Reusing significant, identical or nearly identical portions of one's own prior work without acknowledging that one is doing so or without citing this original work (self-plagiarism)

**Cheating is defined as obtaining answers/material from an outside source without authorization.**

**Cheating includes, but is not limited to:**

- Plagiarizing in any form
- Using notes/books/electronic material without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical
- Allowing your work to be submitted by others

## Incompletes Policy

(Excerpt from JC Policy) "A student may request an incomplete from the instructor. The incomplete will be granted only if the student can provide documentation that his or her work up to that point is sufficient in quality, but lacking in quantity, due to circumstances beyond the student's control. Furthermore, a written plan for making up the missing work within one semester must be completed by the student. Final determination of whether an incomplete will be given is the instructor's decision."

## Help

It can be very frustrating when you do not understand concepts and are unable to complete homework assignments. Please reach out if you are struggling with a topic. We can meet virtually if needed. These resources are also available to our students.

- **CENTER FOR STUDENT SUCCESS:** Tutors (plus additional services for academic success) can be accessed by calling **796-8415**. Arrange to get regular assistance from a tutor.
- **STUDY GROUP:** Find a study partner or a study group via virtual classroom. Sometimes it helps to work through problems with another person.
- **JETNET:** There will be material posted there to help students and allow them to ask questions of the instructor and/or the group.
- **EMAIL:** The best and quickest way to get a hold of me.

## Accessibility

Jackson College understands that cultivating a broadly diverse community is crucial to our educational mission and to our foundational commitment to leadership and service. Jackson College is fully committed to ensuring our courses are accessible to everyone including those with disabilities. We are currently working to increase accessibility and usability of our course materials in order to meet or exceed the requirements of Section 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1991 and Web Content Accessibility Guidelines (WCAG) 2.0. For more information about Jackson College's efforts to ensure accessibility please visit the [Jackson College accessibility web page](#).

If you have an accessibility need in any of our classes please email the Center for Student Success at [JCCSS@jccmi.edu](mailto:JCCSS@jccmi.edu) or visit the [Center for Student Success web page](#).

At the Center for Student Success (CSS), we are committed to providing all students the opportunity to achieve academic success by providing a variety of support services free of charge to Jackson College students. This includes, but is not limited to, peer and faculty tutoring, mental health referral, temporary assistance with transportation, various workshops/seminars, and the TRIO program.

In addition, the CSS staff is committed to adapting the College's general services to meet the individual needs of otherwise qualified students with disabilities, for the purpose of providing equal access to all programs and facilities.

## Attendance Policy

Notify me prior to missing any lab class. You cannot be successful in this course if you miss more than one class.

## Failure of Course

See program handbook for program reentry process.

## CLINICAL SIMULATIONS LIST

There are **eight required** clinical simulations to complete for this term. You can complete them in any order. They are:

- 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

## Calendar

### RES 210 Lecture and Lab Calendar

| Wk. | Date   | Unit   | Lecture Topic   | Lecture Assignments                                   | Exam Due Dates               | Lab Topics   |
|-----|--------|--------|---|---|------------------------------|--|
| 1   | 10-May | Unit 1 | 1.1 Embryonic Development of the Cardiopulmonary System<br>1.2 Assessment of Fetal Growth and Development | NPS Pre-test  | 5/13 @ 23:59                 |  |
| 2   | 17-May | Unit 1 | 1.3 Labor and Delivery (Transition and Adaptation)<br>1.4 Resuscitation and Stabilization                 |   |                              | Neonatal Resuscitation   |
| 3   | 24-May | Unit 2 | 2.1 Assessment of the Neonatal Patient<br>2.2 Continuing Care of the Neonate                              | Unit One Exam   | 5/27 @ 23:59                 | Oxygen and aerosol Delivery Devices<br>Delivery of Respiratory Medications |
| 4   | 31-May |        | Memorial Day - No class   |   |                              |  |
| 5   | 7-Jun  | Unit 2 | 2.3 Respiratory Pharmacology (Neonatal-Pediatric)   | RT Board Review - Clin Sims 1 <sup>st</sup> Round Due | 6/10 @ 23:59                 | Airway Clearance Techniques<br>Continuous Positive Airway Pressure         |
| 6   | 14-Jun | Unit 2 | 2.4 Assessment of Oxygenation and Ventilation   |   |                              | Conventional Mechanical Ventilation  |
| 7   | 21-Jun | Unit 3 | 3.1 Latest Trends in Neonatal and Pediatric Ventilation   | Unit Two Exam   | 6/24 @ 23:59                 | Conventional Mechanical Ventilation  |
| 8   | 28-Jun | Unit 3 | 3.2 Using Graphics to Fine Tune Ventilation   |   |                              | Conventional Mechanical Ventilation  |
| 9   | 5-Jul  | Unit 3 | 3.3 Pediatric Respiratory Diseases  | RT Board Review - Clin Sims 3rd Round Due             | 7/8 @ 23:59                  | High Frequency Oscillatory Ventilation                                     |
| 10  | 12-Jul | Unit 4 | 4.1 Premature Lung Diseases<br>4.2 Complications Associated with Prematurity                              | Unit Three Exam                                       | 7/15 @ 23:59                 | Conventional Mechanical Ventilation<br><i>Lab Practical Review</i>         |
| 11  | 19-Jul | Unit 4 | 4.3 Newborn Lung Disease<br>4.4 Persistent Perinatal Illness (Congenital Anomalies)                       | RT Board Review - Clin Sims 3rd Round Due             | 7/22 @ 23:59                 | <i>Lab Practical</i>   |
| 12  | 26-Jul | Unit 4 |   | Unit Four Exam<br>NPS Post-test                       | 7/29 @ 23:59<br>7/29 @ 23:59 |  |

## Important Dates: Spring 2021

### Spring 2021 Academic Calendar

| Event  | Dates                 | Notes      |
|--|-----------------------|------------|
| <b>COURSE DATES</b>  |                       |            |
| <b>REGISTRATION BEGINS FOR ALL STUDENTS</b><br><i>New students must contact Admissions at 517.796.8425 prior to registering for classes.</i> | Feb. 24, 2021         |            |
| <b>Semester Dates</b>  | May 10 – Aug. 9, 2021 |            |
| <b>OTHER DATES</b>   |                       |            |
| <b>Memorial Day Holiday</b>  | May 29 – 31, 2021     | No classes |
| <b>Independence Day Holiday</b>  | July 3 – 5, 2021      | No classes |