RSP-241 NEONATAL/PEDIATRIC RESPIRATORY CARE
COURSE SYLLABUS

Semester and Year: Spring 2015  Date Revised: January 19, 2015AC

Course and Section Number: RSP-241 Lab sections 001-004

Meeting Times and Locations: Lecture Tuesday 8:20-10:15AM, Room SA-120. Labs: Monday 08:20-10:15, Monday 10:30-12:30PM, Tuesday 10:30-12:30, Wednesday 12:00-2:00PM. All labs are held in room S-254.

Instructor: Dr. Amy Ceconi
Office Location: S-107
Phone: (201)-493-3558

Departmental Secretary: Gerri Farrell
Office Hours: Monday 12:30-1:30PM, Tuesday 12:15PM-2:30PM & Wednesday 08:15-12:15PM
Email Address: aceconi@bergen.edu

Course Description

List lecture hours, laboratory hours, and credits: 2.0 lectures, 2.0 labs, 3.0 credits


Course Description: This course provides a comprehensive overview of pediatric and neonatal respiratory care. Special considerations of respiratory care practice unique to pediatrics and neonatology are discussed. Topics include pediatric anatomy and physiology, fetal development, clinical assessment, oxygen therapy, airway management, mechanical ventilation, resuscitation, cardiopulmonary pathophysiology and disorders specific to this specialty profession within respiratory care.
Course Content

This course is intended to introduce students to the basic fundamental concepts of neonatal-pediatric respiratory therapy. The course begins with the foundations of respiratory care such as patient assessment skills of the neonate and pediatric patient. The course then covers basic therapeutics including infant and child CPR, airway management, medical gas therapy and delivery, aerosol and humidity therapy, aerosol drug therapy, lung expansion therapy and bronchial hygiene therapy. The course culminates to provide an in depth understanding of all aspects of fetal development, circulation, neonatal and pediatric airway diseases, mechanical ventilation, nasal CPAP management and homecare of the pediatric patient.

The Instructional Methods: Lecture, laboratory, PowerPoint, Internet, small group discussions, review questions, clinical simulations.

Special Features of the Course (if any)

Moodle Room is used to enhance the interaction with the student.

Course Texts and/or Other Study Materials


Competency System by DataArc. Already purchased. $82.00

How to Get the Book(s) for the Course: You can get the book(s) at the Bergen Community College Bookstore, either in person or on line.

Research/Oral Presentation Project

Criteria for Organization of Oral Presentation Project

1. Presentation must be at least 10-15 minutes in length.
2. Handouts, pictures, PowerPoint or other sources may be used.
3. Presentation must be clear, concise and a thorough review of material.
   Format for presentation:
   Background information: i.e., current statistics
   Etiology
   Pathophysiology
   Clinical signs and symptoms
   Diagnostic tests/labs/CXR/etc.
   Treatments/medications.

See attached grading rubric at end of syllabus.
Grading Policy

<table>
<thead>
<tr>
<th>Grading Category</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Lecture Examinations/Multiple Choice (2 @ 20% each)</td>
<td>40%</td>
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<tr>
<td>Laboratory practical exam: Synthesis/Evaluation</td>
<td>20%</td>
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<tr>
<td>Oral Presentation project</td>
<td>20%</td>
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<tr>
<td>Clinical Simulations (2)</td>
<td>20%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Recommended Practices

To succeed in this course, you should do the following:

- Read and follow the Course Syllabus.
- Follow the Course Calendar and also the Course Outline, Reading Assignments.
- Do all required reading and writing assignments in accordance with the “Course Outline, Reading Assignments, and Course Calendar” presented above.
- In addition to the required text readings, study the PowerPoint presentations.
- Participate actively and frequently in all class discussions and other class activities.
- Review (everything).
- Keep in touch with me – in class, by phone, by email, and during my office hours. Don’t become “invisible” or otherwise fade away.

Important College Policies – See the 2014-2015 BCC Online Catalog

Withdrawal from Classes and Refunds
Grading
Course Grade Appeal Policy
Academic Integrity and Plagiarism. [Read this carefully.]
Class Attendance Policy
Acceptable Use of Information Technology Resources
Code of Student Conduct
Alcohol and Drug Policy
Sexual Harassment Policy
Campus Assault Victim’s Bill of Rights.
Smoking Policy
Traffic Regulations

Attendance Policy

**BCC Attendance Policy:**

All students are expected to attend punctually every scheduled meeting of each course in which they are registered. Attendance and lateness policies and sanctions are to be determined by the instructor for each section of each course. These will be established in writing on the individual course outline. Attendance will be kept by the instructor for administrative and counseling purposes.

**Respiratory Care Departmental Attendance Policy:**

Students are expected to attend class regularly and punctually. Attendance will be taken at each class session. It is expected that class will be conducted such that students will benefit by the lectures and class discussion. If students occasionally arrive late, they should be encouraged to enter quietly, not disturbing the class. If students miss class, they should be encouraged to use the course calendar to stay abreast of material. It is probably a good idea for students to find study partners and to exchange telephone numbers.
THERE WILL BE NO MAKE-UP EXAMS. IF YOU ARE NOT PRESENT FOR THE EXAM, YOU WILL RECEIVE A ZERO (0).

Course Website
This section of RSP-241 Neonatal/Pediatric Respiratory Care is a "web-enhanced" class. The class has its own website, and each member of the class has an account for the website. The BCC online course management system is known as "Moodle Rooms." To access your website account (your "My Moodle Rooms" page), go to http://dl.bergen.edu, and log in with your User Name and your Password. Your User Name is the same one you use for WebAdvisor; and your Password is up to the first 8 letters of your last name and the last four digits of your social security number (lower case letters; no spaces, hyphens, or apostrophes). The course website contains an online version of our course syllabus, a regularly-updated list of course announcements, PowerPoint presentations on the readings for the course and a course calendar. I expect you to utilize the website and its facilities throughout the semester.

If necessary, we will also discuss in class how to access and use the course website.

Departmental Policy Statements

1. Acceptable quality of work and mature behavior are expected from every student at all times. Students are regarded as professionals and are expected to conduct themselves accordingly.
2. High standards of professional performance demand that students maintain good academic progress throughout their course of study in the program.
3. Students demonstrating chronic tardiness or absenteeism will be placed on academic warning or probation, and may be subjected to termination from the program.
4. Absence from a class during a scheduled exam will be subject to the policy of the instructor for that specific course. If the student is going to miss a scheduled exam it is expected that the student will contact the instructor ahead of time by e-mail or phone to the department office.
5. All students are required to adhere to the policies and procedures of the school as outlined in the college catalogue.
6. Additional department policies are located in the Student Policies and Procedures Manual.
7. No cell phones allowed during class, exams and when exams are reviewed. This policy will be strictly enforced.

Student and Faculty Support Services

1. The program faculty maintain office hours for counseling and are available to provide tutorial assistance to students.
2. Students must make appointments in advance to meet with the respective instructors.
3. Students may also obtain assistance from the College Tutoring Center. Appointments must be made in advance through this center.
4. The College has a personal counseling center for those students who may need personal assistance. Appointments are made directly through this center.
5. Any problems, concerns, or questions should be directed to the course instructor or the student’s advisor.

The Sidney Silverman Library is committed to providing a quiet, welcoming, respectful atmosphere conducive to study and research in an environment that is comfortable, clean, and safe. The use of the library will be beneficial in providing resources on researching topic information, citation styles, finding current articles among many other media services available.

Grade Criteria
A…..Student must show superior work, excel in class, 92-100
and contribute positively to class discussions.

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<tr>
<th>Grade</th>
<th>Description</th>
<th>Score</th>
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<tbody>
<tr>
<td>B+…</td>
<td>Student must show superior work.</td>
<td>86-91</td>
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<tr>
<td>B…..</td>
<td>Student must merit above average standard of achievement in written work.</td>
<td>80-85</td>
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<tr>
<td>C+…..</td>
<td>Student must attain the standard of achievement with good theoretical knowledge.</td>
<td>75-79</td>
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<tr>
<td>C…..</td>
<td>Not acknowledged</td>
<td>&lt;75</td>
</tr>
<tr>
<td>F…..</td>
<td>Student fails to meet acceptable standards.</td>
<td>&lt;70</td>
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Course Outline, Goals and Objectives

Section 1: Fetal Development, Assessment and Delivery
Walsh: Chapters 1-3 and Chapter 14 Surfactant Replacement Therapy

Goal: To acquaint the student with embryologic development, fetal circulation, fetal structures, fetal growth and development, fetal assessment tests, high risk pregnancies, labor, delivery, and fetal to adult circulation.

Objectives: For each objective listed, the student will learn with a minimum 75% accuracy. As a result of the successful completion of this course, the student will be able to:

1. Describe the embryology of the morula, blastocyst, blastoderm and trophoblast.
2. Identify the five periods of embryonic lung growth and describe the features of each period.
3. Define surface tension and how it is developed.
4. Describe the purpose and function of surfactant.
5. Describe the indications, contraindications, administration techniques and outcomes of surfactant therapy.
6. Explain how lung maturity is determined.
7. Describe the embryologic development of the heart, cardiac chambers, vessels and the cardiac valves.
8. Explain fetal circulation and the pressure differences between the right and left heart.
9. Trace the flow of blood through fetal circulation.
10. Outline the development of the fetus with emphasis on cardiopulmonary development, including the relationship of gestational age to key structures.
11. Describe the changes that occur during the fetal-neonatal transition.
12. Explain the significance of lecithin/sphingomyelin ratio testing, and identify normal and abnormal results.
13. Explain how fetal scalp pH is used to assess fetal asphyxia.
14. List and describe the five methods used to estimate the date of delivery.
15. Explain the implications of meconium-stained amniotic fluid in assessing fetal status.
16. Explain what is meant by the term “high risk infant”.
17. List the factors which determine a “high risk infant”.
18. Identify the most common birth presentation.
19. List the five events that make up the birth process.
20. Describe each of the following: complete breach, incomplete or footling breach, frank breach, face presentation, transverse lie, prolapse of umbilical cord.
21. Identify and describe the three types of placenta previa.
22. List the factors that are responsible for the first breath.
Section II and Section III: Assessment and Monitoring of the Neonatal and Pediatric Patient and Section III Therapeutic Procedures for Treatment of Neonatal and Pediatric Disorders

Walsh: Chapters 4-9 and Chapter 10-13 and Chapter 20 Pharmacology

Goal: To familiarize the student with the techniques of resuscitation and stabilization of the infant, physical assessment of the neonatal and pediatric patient, basic interpretation skills of chest x-rays, respiratory care procedures of the newborn, and thermoregulation of the newborn.

Objectives: For each objective listed, the student will learn with a minimum 75% accuracy. As a result of the successful completion of this course, the student will be able to:

1. List the four factors that can lead to fetal asphyxia.
2. Discuss the effects of asphyxia on the lungs.
3. List and describe the three factors that provide proper preparation for a resuscitation.
4. Describe the ABC’s of an infant resuscitation.
5. Discuss thermoregulation in infants and the special problems it represents.
6. Discuss the use of fetal blood sampling.
7. Contrast normal neonatal blood gas results to that of an adult.
8. Explain in detail the use of apgar scoring, normal and abnormal values.
9. Discuss the indications, procedure for placement, and complications of an umbilical artery catheter.
10. Identify the four methods of obtaining blood samples for analysis and describe why the UAC is the preferred blood sampling site.
11. Identify those arterial sampling sites that are pre-ductal and post-ductal and describe how a right-to-left shunt through the ductus arteriosis can be detected using blood gas PaO2, transcutaneous monitors, or pulse oximeters.
12. Identify the hazards associated with each of the blood gas sampling methods.
13. Describe the importance of the consistency in performance of the heel stick sampling.
14. Identify the purpose of the Ballard Score in evaluation of the newborn.
15. State three anatomic and physiologic differences between the infant and the adult.
16. Identify normal chest structures on chest x-rays.
17. Describe the difference between croup and epiglottitis on x-ray.
18. Identify pneumothorax, and IRDS on x-ray.
19. List the indications and contraindications of airway clearance therapy.
20. Discuss the physiology of thermoregulation including a description of the thermoneutral zone.
21. Describe how a neonate reacts to cold stress and to hyperthermia.
22. Discuss thermoregulation of the neonate in the delivery room and nursery to include methods of heat loss prevention.
23. List and discuss the physiologic factors and mechanisms of drug transfer across the placenta.
24. Define a teratogenic substance and describe its actions on the fetus.
25. Discuss absorption, distribution, metabolism, and excretion as it relates to neonatal and pediatric pharmacology.
26. For each of the following cardiovascular conditions, describe at least one drug that is used in its treatment: CHF, closure of the ductus arteriosus, pulmonary hypertension, hypotension, edema.

27. List at least one drug from each of the categories of respiratory medications. For each drug listed, describe briefly its indications and dosage: sympathomimetic, parasympatholytic, steroid, antiviral.

28. Describe at least one drug from each of the following categories. Include the indications and adverse effects: anticonvulsant, steroid, sedative, paralytic.

29. Explain the effects of maternal drug abuse on the fetus.

Section III and Section IV: Causes and Care of Illness In Perinatal and Pediatric Patients

Walsh Chapters 22-29

Goal: To introduce the student to perinatal lung disease and other problems of infant prematurity, causes of persistent perinatal illness, and pediatric diseases requiring respiratory care procedures.

Objectives: For each objective listed, the student will learn with a minimum 75% accuracy. As a result of the successful completion of this course, the student will be able to:

1. Describe the clinical signs of cardiopulmonary distress in the newborn and pediatric patient. Contrast these responses to the adult.
2. Discuss the evaluation of the newborn and pediatric patient including, identification of risk, clinical assessment, and monitoring techniques.
3. Discuss the etiology, epidemiology, pathology, pathophysiology, clinical manifestations, complications, course and treatment of specific neonatal and pediatric disorders:
   - Infant Respiratory Distress Syndrome
   - Bronchopulmonary Dysplasia
   - Retinopathy of Prematurity
   - Intracranial and Intraventricular hemorrhages
   - Sudden Infant Death Syndrome (SIDS)
   - Transient Tachypnea of the Newborn (TTN)
   - Meconium Aspiration
   - Pneumothorax
   - Pneumopericardium
   - Pulmonary Interstitial Emphysema
   - Central and Obstructive Apnea
   - Persistent Pulmonary Hypertension
   - Patent Ductus Arteriosis (PDA)
   - Persistent Fetal Circulation (PFC)
   - Respiratory Syncytial Virus (RSV)
   - Bronchiolitis
   - Cystic Fibrosis
   - Croup
   - Epiglottitis
   - Reye’s Syndrome
   - Aspiration/poisoning Syndromes
   - Tetrology of Fallot
   - Ventricular Septal Defects
   - Atrial Septal Defects
   - Surgical Disorders and congenital disorders of the airway, diaphragm, and the chestwall.
4. Explain how infections are acquired by the fetus and the neonate.
5. Identify the effects of cytomegalovirus, rubella, herpes simplex, and toxoplasmosis on the developing fetus.
6. Describe the diagnosis, prevention and treatment of infection in the neonate.
Management of Oxygenation and Ventilation
Walsh Chapters (15-19)

Goal: To familiarize the student with the concepts of mechanical ventilation as it relates to the neonatal pediatric patient, to understand the conventional methods of mechanical ventilation, and to become familiar with the special procedures and non-conventional ventilatory techniques used today.

Objectives: For each objective listed, the student will learn with a minimum 75% accuracy. As a result of the successful completion of this course, the student will be able to:

1. Describe the indications of mechanical ventilation in the neonate and the methods to achieve this goal.
2. Define how ventilator parameters are determined and the appropriate settings and alarms for each one.
   a. PIP peak inspiratory pressure
   b. Tidal volume
   c. Respiratory rate
   d. Inspiratory time
   e. Mean airway pressure
   f. Minute ventilation
   g. Flow rates
   h. I:E ratio
   i. PEEP/CPAP
   j. CMV/SIMV/PS
3. Compare and contrast dynamic and static compliance.
4. Describe the determinants of pulmonary compliance and resistance.
5. Determine initial ventilator settings for various patient sizes.
6. Identify common complications of CPAP and how they can be avoided.
7. Describe the indications and contraindications of continuous positive airway pressure (CPAP) and describe how it increases FRC.
8. Demonstrate how to set up a CPAP system, describe the monitoring, hazards and weaning of this therapy.
9. Describe the important elements of a neonatal ventilator circuit.
10. Compare and contrast volume ventilation and pressure ventilation with regard to the advantages and disadvantages.
11. Compare and contrast the methods of weaning a neonatal patient and a pediatric patient from mechanical ventilation and the techniques of extubation.
12. Identify the advantages and disadvantages of High Frequency Jet Ventilation and High Frequency Oscillatory Ventilation.
13. Discuss how gas is delivered and exhaled during HFJV.
14. Describe ECMO therapy, how it is initiated, the indications for the termination and the complications associated with its use.
15. Describe the effects of NPPV on respiratory function.
16. Identify neonatal/pediatric disorders amenable to a trial of NPPV versus those that do not warrant the therapy.
17. Discuss how adjustments in inspiratory and expiratory positive airway pressures affect respiratory function.
18. Discuss common complications and contraindications to NPPV.

Section V Transport, Homecare, and Quality and Patient Safety

**Walsh Chapters 34-35**

**Goal:** To familiarize the student with the different types of perinatal transport, equipment and skills required, infant preparation, patient selection and preparation for home care, family training, oxygen therapy and home apnea monitoring, and quality and patient safety.

**Objectives:** For each objective listed, the student will learn with a minimum 75% accuracy. As a result of the successful completion of this course, the student will be able to:

1. Discuss and recognize the importance of team composition, roles and education.
2. Compare and contrast the types of transport, with regard to distances covered, advantages and disadvantages.
3. Discuss the effects on altitude on PaO2 and discuss the changes required in FiO2 as altitude increases to maintain PaO2.
4. Describe the skills required by transport personnel.
5. List the equipment required for transport and describe the modifications required for use during transport.
6. Discuss the preparation required before transporting the infant.
7. Review safety and accreditation requirements for pediatric transport agencies.
8. Identify the factors that make home care preferable over hospital care.
9. Describe steps in selecting a home care patient and all the discharge steps to home.
10. Describe preparation, selection, and training of parents and family for a home ventilator patient.
11. Describe the equipment and techniques for administering aerosols, chest physiotherapy and suctioning in the home.
12. Regarding home apnea monitoring, describe each of the following: identification of patients for monitoring, problems associated with home monitoring.
13. Compare and contrast oxygen concentrators, liquid systems, and cylinders for home oxygen use.
14. Discuss the role of each care giver who is involved with discharge planning and the critical components of a discharge plan.
15. Discuss the effects of home care on the family.
16. Describe why home care fails and what the practitioner can do to prevent failure.
### Proposed Class/Lab Schedule/Assignments

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture Topic</th>
<th>Lab/Reading Assignment</th>
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<tbody>
<tr>
<td>1</td>
<td>1/20</td>
<td>Review course syllabus, exams, assignments, grading rubrics.</td>
<td>Egan Chapter 45</td>
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<tr>
<td></td>
<td></td>
<td>Anatomy &amp; Physiology Specific to Neonates/Pediatrics</td>
<td>Walsh Ch. 4</td>
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<tr>
<td></td>
<td></td>
<td>Assessment of the Neonatal And Pediatric Patient</td>
<td>Lab: Neonatal/Pediatric Airway Management/Intubation Video</td>
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<td><em>DVD: Conception to Birth &quot;A Human Life Emerges&quot;</em> QP251.H86 2004</td>
<td>Review intubation/extubation</td>
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<td><strong>PP Ch 4 Assessment of the Neonatal/Pediatric Patient</strong></td>
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<td>Video: Gestational Age Assessment &amp; Newborn Reflexes</td>
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<td>RJ253.A7832010</td>
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<td>2</td>
<td>1/27</td>
<td>Resuscitation of the newborn Stabilization and Monitoring techniques</td>
<td>Lab: Adult/Child/Infant CPR Recertification Class</td>
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<td><em>Walsh Ch 4</em></td>
<td>File 02 S-25, S-26</td>
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<td></td>
<td><strong>PP Infant Resuscitation</strong></td>
<td>File 05 S-06, S-07</td>
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<td>Video: DVD: Newborn Stabilization &amp; Care—Apgar Scoring System RG951.0277 2008</td>
<td>Apgar Nursing program on computers in lab.</td>
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<td></td>
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<td>Assessment of the Newborn: First 10 minutes RJ 253.A782 2010</td>
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<tr>
<td>3</td>
<td>2/3</td>
<td>Embryological Development of the Cardiopulmonary System</td>
<td>Egan Chapter 45</td>
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<td>Fetal lung development</td>
<td>Respiratory Care Procedures</td>
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<td>Fetal circulation</td>
<td>Oxygen Therapy/Suctioning</td>
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<td><em>Walsh Ch 1, 2</em></td>
<td>Video: Butler/Neonatal/Pediatric Emergencies</td>
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<td><strong>P Ch 1Fetal Lung Development</strong></td>
<td>Lab: Oxygen Worksheet</td>
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<td><strong>Oral Presentations</strong></td>
<td>Video: Resp. Distress in the Pediatric Patient Assessment &amp; Intervention RJ431.R382012</td>
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<td>IRDS &amp; Surfactant Replacement Therapy Ch. 22</td>
<td>Resp. Distress in the Pediatric Patient: anatomy, B/S RC734.A94R382012</td>
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<td>RSV &amp; Bronchiolitis Ch. 26</td>
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<td>Week</td>
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<td>Lecture Topic</td>
<td>Lab/Reading Assignment</td>
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<tr>
<td>4</td>
<td>2/10</td>
<td>Assessment of Fetal Growth and Development</td>
<td>Walsh Ch. 3</td>
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<td><strong>PP Assessment of Fetal Growth/Development</strong></td>
<td>Lab worksheet Walsh Chapter 10-12 Exercises</td>
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<td><strong>Oral Presentations:</strong></td>
<td>Pharmacology review</td>
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<td>Croup/Epiglotitis Ch. 26</td>
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<td>Asthma/Heliox Therapy Ch. 27</td>
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<tr>
<td>5</td>
<td>2/17</td>
<td><strong>Review for exam 1</strong></td>
<td>Lab: CPAP Therapy</td>
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<td><strong>Oral Presentations:</strong></td>
<td>Walsh Ch. 15</td>
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<td>Cleft Palate/Choanal Atresia/Macroglossia Ch. 23</td>
<td><strong>PP Ch 15 CPAP Therapy</strong></td>
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<td>Persing CD Baby Greta-CPAP</td>
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<td>6</td>
<td>2/24</td>
<td>EXAM 1 Ch. 1-4, 9</td>
<td>Lab: Lab Competency: CPAP Therapy</td>
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<tr>
<td>7</td>
<td>3/3</td>
<td><strong>Review Exam 1</strong></td>
<td>Walsh Ch. 3</td>
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<td>Labor, Delivery and Physiological Changes After Birth</td>
<td>Lab Competency: CPAP Therapy</td>
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<td><strong>PP Labor, Delivery and Physiological Changes After Birth</strong></td>
<td>Lab: Mechanical Ventilation of the Neonate Walsh 15, 17</td>
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<td>Video: Assisted Delivery &amp; Cesarean Section 2009 RG951.0271</td>
<td><strong>PP Ch 15, 17</strong></td>
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<td>Thermoregulation, Fluid &amp; Electrolyte Imbalances</td>
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<td>Video: FHR/Tocolysis/Early labor</td>
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<td><strong>Oral Presentations:</strong></td>
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<td>PPHN &amp; Nitric Oxide Therapy</td>
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<td>PDA/Ventricular Septal Defects &amp;</td>
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<td>Week</td>
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<td>Lab/Reading Assignment</td>
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| 8    | 3/10 | **Transposition of the Great Vessels Walsh Ch 24**  
**Whooping Cough/Measles** | Lab: Mechanical Ventilation of the Neonate Whitaker 14, 15 |
| 9    | 3/17 | **Oral Presentations:**  
**SIDS/ Shaken Baby Syndrome**  
**TTN/ MAS**  
**Video: Beginnings of Life: Understanding Childbirth**  
*RG 525.U54 2011* | Spring Break |
| 10   | 3/24 | **Review for exam 2**  
**Clicker questions: 15, 17**  
**Case Manager Presentation** | Lab: Mechanical Ventilation of the Neonate Walsh 15, 17  
*PP Ch 15, 17*  
**Review for Exam 2** |
| 11   | 3/31 | **EXAM 2 Chapters 3, 15, 17** | Lab: Mechanical Ventilation of the Neonate Whitaker 14, 15  
**Lab Competency: Neonatal Vent. Check, & Set-Up, Circuit Change** |
| 12   | 4/7  | **No School/College Closed** | No School/College Closed |
| 13   | 4/14 | **Review Exam 2**  
**Oral Presentations:**  
**IVH& AOP**  
**Cystic Fibrosis**  
**Pneumothorax & Chest Tubes**  
**Diaphragmatic Hernia**  
**ROP** | Walsh Ch 15, 17  
**Lab: Mechanical Ventilation of the Pediatric Patient** |
| 14   | 4/21 | **Persistent Perinatal Illnesses/Cardiac Anomalies/Defects**  
**Video Cardiopulmonary Assessment of the Newborn RJ 253.A781 2010** | Lab: Special Procedures & Ventilatory Techniques, Perinatal Transport |
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<td>4/28</td>
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*Revised: Amy Ceconi, 1/19/2015 Saved as: RSP-241CourseSyllabus2015*