UNIVERSITY OF FLORIDA

COLLEGE OF NURSING

COURSE SYLLABUS

SPRING 2014

COURSE NUMBER: NGR 6321C, section 13C2

COURSE TITLE: Neonatal Nurse Practitioner II

CREDITS: 6 (4 credits didactic, 2 credits laboratory)

Minimum required contact hours for laboratory/clinical: 96

PLACEMENT: Second clinical course in Neonatal Nurse Practitioner Track

PREREQUISITES NGR 6320C: Neonatal Nurse Practitioner I

PRE/COREQUISITES NGR 6371: Pharmacotherapeutics for Advanced Practice   
 Neonatal Nursing

NGR 6850: Research Methods and I Utilization for Nursing

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| **FACULTY** |  |  |  |
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| **Susan Schaffer, PhD, ARNP, FNP-BC**  [sdschaf@ufl.edu](mailto:sdschaf@ufl.edu)  **Gainesville Campus** | HPNP 2229 | Office 352-273-6366 | Available by appt |
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# COURSE DESCRIPTION This course provides advanced study of neonatal intensive care nursing for high risk and critically ill neonates. Emphasis will be on the health problems of critically ill and high-risk neonates in the neonatal intensive care unit, the advanced nursing management of neonatal problems, and the role of the neonatal nurse practitioner in neonatal critical care.

COURSE OBJECTIVES Upon completion of this course the student will be able to:

1. Integrate theory and current research findings pertaining to neonatal and fetal physiology and pathophysiology, the high risk and critically ill neonate and family, and therapeutic approaches into the management of neonatal health problems.

2. Identify patterns of abnormal embryological and fetal growth and development including the genetic and environmental variables which influence those patterns.

3. Direct the care of the high risk and critically ill neonate in collaboration with other members of the health care team.

1. Analyze the growth and development of selected body structures during gestation identifying common patterns of development.

5. Provide care that is legally, ethically and culturally competent to critically ill and high-risk neonates in neonatal intensive care settings.

6. Facilitate support programs designed to assist the family of the high risk and critically ill neonate.

7. Analyze health assessment data to develop comprehensive and accurate differential diagnoses.

8. Provide care for neonates with acute and chronic health care needs based upon priorities for intervention.

COURSE SCHEDULE

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Class: Monday 9:00 AM - 1:00 PM on Adobe Connect

Required onsite class: January 6 and 7, 2014 from 8:30 am – 5:00 pm

Clinical: TBA

E-Learning in Saki is the course management system that you will use for this course. E-Learning in Sakai is accessed by using your Gatorlink account name and password at <http://lss.at.ufl.edu>. There are several tutorials and student help links on the E-Learning login site. If you have technical questions call the UF Computer Help Desk at 352-392-HELP or send email to [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu).

It is important that you regularly check your Gatorlink account email for College and University wide information and the course E-Learning site for announcements and notifications.

Course websites are generally made available on the Friday before the first day of classes.

ATTENDANCE

Students may be expected to attend on-campus or synchronous classes periodically.

Students are expected to participate in the activities and discussions as listed in the course syllabus and on the course web-site. Timeframes for the posting and receiving of materials are listed in the course materials on the course web-site.

This course will use one of UF’s web hosted collaborative software applications (Adobe

Connect and or Voice Thread) for lecture presentation and or assignments.  These collaborative applications have the functionality of recording your text, audio and/or video comments.   If you do not want to be recorded please notify assigned faculty member prior to the first class.  You do not need to provide a photo or use the video comment option, this is your choice.  The recordings are accessed through web links provided by your faculty member and should not be shared with anyone not enrolled in the course. The recordings are available to the class during the semester.  The recordings will not be used in another course

**ProctorU**:

* + Major course examinations will be administered via ***ProctorU***, a live proctoring service, to ensure a secure testing environment.
  + Each student computer must be in compliance with Policy S1.04, *Student Computer Policy* and must contain a web cam, microphone, and speakers.
  + Each examination will cost $22.50 per exam.
  + Students go to the website <http://www.proctoru.com/> and click on “How To Get Started”. This will permit students to create an account and test out their system.
  + Once an instructor makes an exam available, students go online to ***ProctorU*** to schedule and pay for the exam session. Students must provide a valid email address and phone number where they can be reached during an exam.
  + CON IT Support office will oversee this process and provide technical assistance.

**Clinical Practice Courses:**

Students are expected to be present for all scheduled clinical practice experiences and seminars. Students who have extraordinary circumstances preventing attendance should explain these circumstances to the course instructor **prior** to the scheduled clinical practice experience or seminar. Instructors will then make an effort to accommodate **reasonable** requests. A grade penalty may be assigned for unexcused seminar or clinical absences. The faculty member will advise the method of notification for absences to the clinical site e.g. phone, email, and notification of facility.

**Graduate students** are required to submit a written calendar of planned clinical practice dates and times to the course faculty member **prior** to beginning the clinical rotation. Any changes to the calendar (dates and times) must be submitted in writing to the course faculty member **before** the change is planned to occur. **Clinical hours accrued without prior knowledge of the faculty member will not be counted toward the total number of clinical hours required for the course.**

**ACCOMMODATIONS DUE TO DISABILITY**

Each semester, students are responsible for requesting a memorandum from the Disability Resource Center (<http://www.dso.ufl.edu/index.php/drc/>) to notify faculty of their requested individual accommodations. This should be done at the start of the semester.

**COUNSELING AND STUDENT HEALTH**

Students may occasionally have personal issues that arise on the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the University of Florida Counseling and Wellness Center, 352-392-1575, visit their web site for more information: <http://www.counseling.ufl.edu/cwc/>.

**STUDENT HANDBOOK**

Students are to refer to the College of Nursing Student Handbook for information about College of Nursing policies, honor code, and professional behavior. <http://nursing.ufl.edu/students/student-policies-and-handbooks/>

**ACADEMIC HONESTY**

The University of Florida Student Conduct and Conflict Resolution Policy may be found at <http://www.dso.ufl.edu/index.php/sccr/process/student-conduct-honor-code/>

TOPICAL OUTLINE

1. Health maintenance and anticipatory care of the immature and intrauterine growth-retarded infant.

2. Pharmacologic and nutritional variations related to immaturity.

3. Embryology, pathology and advanced nursing management of diseases and congenital defects related to the respiratory, gastrointestinal, urogenital, cardiac, sensory, and neurological systems.

4. The high risk perinatal family and their adaptation to the crisis of the birth and hospitalization of a critically ill neonate.

1. Legal and ethical issues concerning neonatal intensive care such as access to care, regionalization, health care reform, and the development of technology.

6. Emergency management in the delivery room and intensive care unit.

7. Identification of differential diagnoses based on appropriate health assessment techniques.

# TEACHING METHODS

Lecture, discussion, case studies, on-site simulation lab, faculty supervised clinical practice, written materials, computer assisted instruction and audiovisual materials, and individual conferences.

LEARNING ACTIVITIES

Case studies, discussions, exams, and simulation lab.

EVALUATION METHODS

Minimum Required Contact Hours: 96

Clinical courses are evaluated using the Clinical Evaluation form. Clinical evaluation will be based on faculty observation, verbal communication with the student, written work, and agency staff reports using a College of Nursing Clinical Evaluation Form. Faculty reserve the right to alter clinical experiences, including removal from client care areas, of any student to maintain patient safety and to provide instructional experiences to support student learning.

Clinical evaluation will be based on achievement of course and program objectives using a College of Nursing Clinical Evaluation form. All areas are to be rated. A rating of Satisfactory represents satisfactory performance and a rating of Unsatisfactory represents unsatisfactory performance. **The student must achieve a rating of Satisfactory in each area by completion of the semester in order to achieve a passing grade for the course.** A rating of less than satisfactory in any of the areas at semester end will constitute a course grade of E. Regardless of the classroom grade, the student receiving an Unsatisfactory evaluation in the clinical component of the course will be assigned a course grade of E or U.

The faculty member will hold evaluation conferences with the student and clinical preceptor, if applicable, at each site visit. The faculty member will document or summarize each conference on the Clinical Evaluation Form or Advisement Record. This summary will be signed by the faculty member and student. Mid-rotation evaluation conferences will be made available to each student. **Final evaluation conferences with the faculty member are mandatory** and will be held during the last week of each course. A student may request additional conferences at any time by contacting the faculty member.

Students enrolled in advanced practice courses with a clinical practice component will use Clinical Experience Form F to document clinical experience including hours, practice location and preceptor for their personal records. Students also assess their learning experiences using Clinical Site Assessment Form G. Form G is submitted online via course website. At the end of the clinical experience the student completes a self-evaluation and the faculty member completes a student evaluation using the College of Nursing Clinical Evaluation Form.

Clinical performance will be graded on satisfactory/unsatisfactory basis. Students must achieve a satisfactory grade in the clinical area in order to successfully complete the course. For students who achieve a satisfactory clinical grade, didactic evaluation will be through written examinations and written assignments.

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| Case Studies | 20% | See schedule below |
| Test I | 20% | Feb 10th (9:00-11:00) |
| Test II | 20% | March 10th (9:00-11:00) |
| Test III  Test IV | 20%  20% | April 7th (9:00-11:00)  April 28th (9:00-11:00) |

All graded assignments will be graded and returned to the student within 2 weeks of submission unless otherwise notified.

**MAKE UP POLICY**

Make-up exams will only be arranged in the event of extreme emergencies and the course faculty must be notified in advance. Students who have extraordinary circumstances preventing submitting any assignment by the due date should explain these circumstances to the course instructor **prior** to the scheduled assignment due date. Failure to discuss prior to the due date will result in the missed assignment not being accepted once the assignment has been reviewed in class. If the case study assignment has not been reviewed in class, a letter grade will be lost for each additional day the assignment is late, if the student did give prior notification to the course faculty.

In the case of absence from clinical experiences, the student will need to notify the preceptor and clinical faculty prior to missing the scheduled date and will need to schedule additional clinical hours that are acceptable to the preceptor and faculty member. The faculty member will determine if this plan is an acceptable alternative.

**GRADING SCALE/QUALITY POINTS:**

A 95-100 (4.0) C 74-79\* (2.0)

A- 93-94 (3.67) C- 72-73 (1.67)

B+ 91-92 (3.33) D+ 70-71 (1.33)

B 84-90 (3.0) D 64-69 (1.0)

B- 82-83 (2.67) D- 62-63 (0.67)

C+ 80-81 (2.33) E 61 or below (0.0)

\* 74 is the minimal passing grade

For more information on grades and grading policies, please refer to University’s grading policies: Graduate: <http://gradcatalog.ufl.edu/content.php?catoid=4&navoid=907#grades>

FACULTY EVALUATION

Students are expected to provide feedback on the quality of instruction in this course based on ten criteria.  These evaluations are conducted online at <https://evaluations.ufl.edu>.  Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open.  Summary results of these assessments are available to students at <https://evaluations.ufl.edu>.

# REQUIRED TEXTBOOKS

Blackburn, S. (2013). Maternal, fetal, and neonatal physiology: A clinical perspective. (4th ed.). Elsevier. ISBN: 9781437716238.

Cloherty, J., Eichenwald, E., Hansen, A. & Stark, A. (2012). *Manual of Neonatal Care*, (7th ed.). Lippincott, Williams & Wilkins. ISBN-13: 978-1-60831-777-6. (suggested to purchase with workbook at CCPR: <http://ccprwebsite.org/cp_product.cfm?i=102>)

Gomella, T. L., Cunningham, M.D., & Eyal, F.G. (2013). *Neonatology management, procedures, on-call problems, diseases and drugs: 25th edition* (7th ed.). McGraw-Hill Professional Publishing. ISBN: 9780071768016.

Moore, K. & Persaud, T. (2011). *The Developing Human: Clinically oriented embryology* (9th ed.). Elsevier. ISBN - 9781437720020.

RECOMMENDED TEXT

Donn, S. M. & Sinha, S. K. (2012). *Manual of Neonatal Respiratory Care* (3rd ed.). Springer. ISBN: 9781461421542.

**WEEKLY CLASS SCHEDULE**

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| **Date** | **Topic** | **Readings** |
| Week 1  January 6 and 7th  Onsite class 8:30 – 5:00  Dr. Parker and Hoffman | Family  Human Development: The Fetal Period  Simulation  Skills Lab | Cloherty – Chapter 6  Gomella – Chapters 24, 25, 27, 29, 30, 35, 40, 44  Moore & Persuad, Chapter 6  Armentrout, D. & Cates, L. (2011). Informing parents about actual or impending death of their infant in a newborn intensive care unit. *Journal of Perinatal & Neonatal Nursing,* 25: 261-267.  Discenza, D. (2010). When a baby dies: When families need you the most. *Neonatal Network,* 29: 259-261.  Discenza, D. (2009). Taking care of the NICU mom. *Neonatal Network,* 28: 351-352.  De Lisle-Porter, M. & Podruchny, A. (2009). The dying neonate: Family-centered end-of-life. *Neonatal Network,* 28: 75-83.  Orzalesi, M. & Aite, L. (2011). Communication with parents in the neonatal intensive care. *Journal Maternal Fetal Neonatal Medicine,* 24 (Suppl 1): 135-7.  [Smith et al., (2012). Coping with the neonatal intensive care unit experience: parents' strategies and views of staff support.](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed?term=Smith%20VC%5BAuthor%5D&cauthor=true&cauthor_uid=23111723) [*Journal of Perinatal & Neonatal Nursing*](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed/23111723)*,* 26, 343-52.    **Supplemental readings:**  Brazy, J.E., Anderson, B.M.H., Becker, P (2001). How parents of premature infants gather information and obtain support. *Neonatal Network,* 20: 41-47.  Dyer, K. (2005). Identifying, understanding and working with grieving parents in the NICU, Part II: Strategies. *Neonatal Network,* 24: 27-40.  Dyer, K. (2005). Identifying, understanding and working with grieving parents in the NICU,  Part I: Identifying and understanding loss and the grief response. *Neonatal Network*, 24: 35-46.  Matthews, A. & O’Connor-Von, S. (2008). Administration of comfort medication at end of life in neonates: effects of weight. *Neonatal Network,* 27: 223-227.  McAllister, M. & Dionne, K. (2006). Partnering with parents: Establishing effective long-term relationships with parents in the NICU, *Neonatal Network,* 25: 329-337.  Thomas, L. (2008). The changing role of parents in neonatal care: A historical review. *Neonatal Network,* 27: 91-100.  Woodwell, W. (2002). Perspectives on parenting in the NICU. *Advances in Neonatal Care,* 2: 161-165. |
| Weeks 2 and 3  Monday Jan 13th  **Tuesday Jan 21st (due to Monday holiday)** | Advanced Management of Respiratory Problems: PPHN, CDH, Anomalies of the Respiratory Tract. Anomalies of the Respiratory Tract  Human Development:  Body Cavities and Diaphragm  Respiratory System | Blackburn, Chapter 3, pages 73-79 and Chapter 10  Gomella - Chapters 6, 11  Cloherty – Chapters 35, 39, 62  Moore & Persaud - Chapters 8, 10    Gaede, C. (2006). Congenital chylothorax. *Neonatal Network*, 25(5): 371-381.  Hartnett, K.S. (2008). Congenital diaphragmatic hernia: Advanced physiology and care concepts. *Advances in Neonatal Care*, 8(2): 107-115.  Shanti. (2008). Cystic lung disease. *Seminars in Pediatric Surgery*, 17(8): 2-8.  Steinhorn. (2010). Neonatal pulmonary hypertension. *Pediatric Critical Care Medicine*. 11(2 Suppl): S79-84. |
| Weeks 4 and 5  January 27th and Feb 3rd | Ventilation of the Newborn | Gomella - Chapter 6  Cloherty – Chapter 29  Brown & DiBlasi, (2011). [Mechanical ventilation of the premature neonate](http://go.galegroup.com.lp.hscl.ufl.edu/ps/retrieve.do?sgHitCountType=None&sort=DA-SORT&inPS=true&prodId=AONE&userGroupName=gain40375&tabID=T003&searchId=R1&resultListType=RESULT_LIST&contentSegment=&searchType=AdvancedSearchForm&currentPosition=1&contentSet=GALE%7CA268405183&&docId=GALE|A268405183&docType=GALE&role=). *Respiratory Care,* 56(9): 1298.  Miller, N. (2010). Techniques of early respiratory management of very low birth and extremely low birth weight infants. *Neonatal Network,* 29(3): 153-160.  Petty, J. (2013) Understanding neonatal ventilation: Strategies for decision making in the NICU. *Neonatal Network,* 32: 246-261.  Snow, T. (2007). A nurse’s guide to common mechanical ventilation techniques and modes used in infants, *Advances in Neonatal Care,* 7(1): 8-21.  Snyder, T., Walker, W. and Clark, R. (2010). Establishing gas exchange and improving oxygenation I the delivery room management of the lung. *Advanced in Neonatal Care,* 10: 256-260.  **Supplemental Readings:**  Donn & Sinha - *Manual of Neonatal Respiratory Care*  Mann, B., Sweet, M., Knupp, A., Buck, J., & Chipps, E. (2013). Nasal continuous positive airway pressure: A multisite study of suctioning practices within NICUs. *Advances in Neonatal Care,* 13: E1-E9.  Touch S., Shaffer, T. & Greenspan, J. (2002). Managing our first breaths: A reflection on the past several decades of neonatal pulmonary therapy. *Advances in Neonatal Care,* 21(5): 13-20. |
| Weeks 6 and 7  February 10th (11:00 – 1:00)  and February 17th | Management of Gastrointestinal Problems  HUMAN DEVELOPMENT:  Alimentary System | Blackburn – Chapter12  Gomella - Chapters 104 and 118-120  Cloherty – Chapters 27, 62  Moore & Persaud - Chapter 11  Birch & Newell. (2009). GER disease in preterm infants: current management and diagnostic dilemmas. *Archives of Diseases Children, Fetal, & Neonatal Ed*. 94(5): F379-83.  Christison-Lagay, Kelleher & Langer. (2011). Neonatal abdominal wall defects. *Seminars in Fetal Neonatal Medicine. 16*(3): 164-72.  De Silva, N., Young, J. & Wales, P. (2006). Understanding neonatal bowel obstruction: Building knowledge to advance practice. *Neonatal Network*, 25(5): 303-318.  Donahue, L. (2007). Spontaneous intestinal perforation, *Neonatal Network,* 26(5): 335-351.  Gephart, S., McGrath, J., & Effken, J. (2012). Necrotizing enterocolitis risk: State of the science. *Advances in Neonatal Care,* 12: 77-87.  Neu & Walker. (2011). NEC. *New England Journal of Medicine,* 364(3): 255-264.  Schurr, P. & Findlater, C. (2012). Neonatal mythbusters: evaluating the evidence for and against pharmacologic and nonpharmacologic management of gastroesophageal reflux. *Neonatal Network,*  31: 229-241.  **Supplemental Readings:**  Henry, S.M. (2004). Discerning differences: Gastroesophageal reflux and gastroesophageal reflux disease in infants. Advances in Neonatal Care, 4(4). 235-249. |
| Week 8  February 24th | Problems associated with late preterm infants | Gomella - Chapter 17  Committee on Fetus and Newborn (2011). Postnatal glucose homeostasis in late-preterm and term infants. *Pediatrics,* 127: 575-579.  Mally, P., Bailey, S., & Hendricks-Munoz, K. (2010). Clinical issues in the management of late preterm infants. *Current Problems in Pediatric Adolescent Health Care,* 40: 218-233.  Munson, M., Saatkamp, R. & West, C. (2011). Late preterm infants: Steps to success. *Neonatal Network,* 30: 267-270.  **Supplemental readings:**  Engle, W. A., Tomashek, K. D., & Wallman, C. (2007). Late-preterm infants: A population at risk. *Pediatrics,* 120(6): 1390.  Jorgensen, A, (2008). Late preterm birth: A rising trend, Part one of a two part series. *AWHONN, Nursing for Women’s Health,* 12(4): 306-315.  Jorgensen, A. (2008). Late preterm birth: Clinical complications and risks, Part two of a two part series. *AWHONN, Nursing for Women’s Health,* 12(4): 316-331.  Smith, J., Donze, A. & Schuller, L. (2007). An evidence-based review of hyperbilirubinemia in the late preterm infant with implications for practice: Management, follow-up and breastfeeding support, *Neonatal Network,* 26: 395-405.  Woythaler, M., McCormick, M. & Smith, V. (2011). Late preterm infant have worse 24-month neurodevelopmental outcomes than term infants. *Pediatrics,* 127: e622-e629 |
| Week 9  March 3rd | SPRING BREAK |  |
| Weeks 10 and 11  March 10th (11:00 – 1:00) and March 17th | MANAGEMENT OF CARDIOVASCULAR PROBLEMS: Congenital Heart Defects; Medical and Surgical Interventions: Manifestation, Complications and Treatment of Congestive Heart Failure, Hydrops  HUMAN EMBRYOLOGY: cardiovascular system | **Required readings:**  Gomella Chapters 13, 45, 54, 58, 81, and 109  Cloherty – Chapters 40, 41  Moore, Chapter 13  **Suggested Readings:**  **Hydrops:**  Bellini, C. & Hennekam, R. (2012). Non-immune hydrops fetalis: A short review of etiology and pathophysiology. *American Journal of Medical Genetics Part A,* 158A: 597-605.  Fukushima, K., Morokuma, S., Fujita, Y et al. (2011). Short-term and long-term outcomes of 214 cases of non-immune hydrops fetalis. *Early Human Development,* Article in Press, 1-5.  Randenberg, A. L. (2010). Nonimmune hydrops fetalis part I: etiology and pathophysiology. *Neonatal Network,* 29: 281-295.  Randenberg, A. L. (2010). Nonimmune hydrops fetalis part II: Does etiology influence mortality? *Neonatal Network,* 29: 367-380.  Santo, S., Mansour, S., Thilaganathan, B., et al. (2011). Prenatal diagnosis of non-immune hydrops fetalis: What so we tell parents? *Prenatal Diagnosis,* 31: 186-195.  **HLHS:**  Ellinger, M. K. & Rempei, G. R. (2010). Parental decision making regarding treatment of hypoplastic left heart syndrome. *Advanced in Neonatal Care,* 10: 316-322.  Dudlani, G., Braley, K., Perez-Colon, E., et al. (2011). Long-term management of patients with hypoplastic left heart syndrome: The diagnostic approach at All Children’s Hospital. *Cardiology in the Young,* 21(Suppl 2): 80-87.  Feinstein, J., Benson, D., Dubin, A. et al (2012). JACC White Paper - Hypoplastic left heart syndrome: Current considerations and expectations. *Journal of the American College of Cardiology,* 59 (Suppl S): S1-S42.  Goldberg, C., Mussatto, K., Licht, D., & Wernovsky, G. (2011). Neurodevelopment and quality of life for children with hypoplastic left heart syndrome: Current knowns and unknowns. *Cardiology in the Young,* 21(Suppl 2): 88-92.  Hehir, D., Cooper, D., Walters, e., & Ghanayem, N. (2011). Feeding, growth nutrition, and optimal interstage surveillance for infants with hypoplastic left heart syndrome. *Cardiology in the Young,* 21(Suppl 2): 59-64.  **Misc:**  Boucek, R. & Boucek, M. (2002). Pediatric heart transplantation. *Current Opinions in Pediatrics,* 14: 611-619.  Gray, B., Shaffer, A. & Mychaliska, G. (2012). Advances in neonatal extracorporeal support: The role of extracorporeal membrane oxygenation and the artificial placenta. *Clinics in Perinatology,* 39(2): 311-29.  Klassen, L. (1999). Complete congenital heart block: A review and case study. *Neonatal Network,* 18(3), 33-42.  Pashia, S. (2007). Ebstein’s anomaly. *Neonatal Network,* 26: 197-208.  Raeside, L. (2009). Coarctation of the aorta: A case presentation. *Neonatal Network,* 28: 103-12.  Tulenko, D. (2004). An update on ECMO. *Neonatal Network*. 12(4): 11-18. |
| Weeks 12 and 13  March 24th and 31st | Management of Neurologic Problems  HUMAN EMBRYOLOGY:  Skeletal system  Muscular system  Nervous system | Blackburn – Chapter 15  Gomella - Chapters 15, 39, 70, 90, 96, 105, 111, and 116  Cloherty – Chapters 54, 55, 56 and 57  Moore & Persaud - Chapters 14, 15 and 17  Allen, K. (2013). Treatment of intraventricular hemorrhages in premature infants: Where is the evidence? *Advances in Neonatal Care,* 13: 127-130. Bassan, (2009). Intracranial hemorrhage in the preterm infant: understanding it, preventing it. [*Clin Perinatology,*](http://www.ncbi.nlm.nih.gov/pubmed/19944833) 36: 737-62.  [Danzer E](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed?term=Danzer%20E%5BAuthor%5D&cauthor=true&cauthor_uid=21745203) et al. (2012). Fetal surgery for myelomeningocele: progress and perspectives. [*Dev Med Child Neurol.*](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed/21745203) 54(1): 8-14.  Jensen, (2009). Neonatal seizures: An update on mechanisms and management. [*Clin Perinatol*.](http://www.ncbi.nlm.nih.gov/pubmed/19944840) 36(4):881-900.  [Kauvar](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed?term=Kauvar%20EF%5BAuthor%5D&cauthor=true&cauthor_uid=20859208) & [Muenke. (2010).](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed?term=Muenke%20M%5BAuthor%5D&cauthor=true&cauthor_uid=20859208)  Holoprosencephaly: recommendations for diagnosis and management*.* [*Curr Opin Pediatr.*](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed/20859208) 22(6): 687-95.  Maguire, D. (2013). Mothers on methadone: Care in the NICU. *Neonatal Network, 32:* 409-415.  Pfister & Soll. (2010). [Hypothermia for the treatment of infants with hypoxic-ischemic encephalopathy.](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed/20877413) *J Perinatol.* Suppl: S82-7.  Robinson S. (2012). Neonatal posthemorrhagic hydrocephalus from prematurity: pathophysiology and current treatment concepts. *J Neurosurg Pediatr.* 9(3): 242-58.  [Sandler AD](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed?term=Sandler%20AD%5BAuthor%5D&cauthor=true&cauthor_uid=20883878). (2010). Children with spina bifida: key clinical issues. [*Pediatr Clin North Am*.](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed/20883878) 57(4), 879-92.  Sussman, C. & Weiss, M. (2013). While waiting: Early recognition and initial management of hypoxic-ischemic encephalopathy. *Advances in Neonatal Care,* 13: 415-423.  [Wachtel &](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed?term=Wachtel%20EV%5BAuthor%5D&cauthor=true&cauthor_uid=21458747) [Hendricks-Muñoz. (2011).](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed?term=Hendricks-Mu%C3%B1oz%20KD%5BAuthor%5D&cauthor=true&cauthor_uid=21458747)  Current management of the infant who presents with neonatal encephalopathy. [*Curr Probl Pediatr Adolesc Health Care*](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed/21458747)*,* 41(5): 132-53.  **Supplemental readings:**  Brand, Sacral Dyspragsm *Advances in Neonatal Care*  Part II: (2006). 6(4): 181-196  Part III: (2007). 7(1): 30-40. |
| Week 14 and 15  April 7th (11:00 – 1:00)  and April 14th | Problems in Metabolic Adaptation and Uterine Growth  HUMAN ENBRYOLOGY: Pharyngeal Apparatus, Face, and Neck | Blackburn - Chapters 17 and 19  Gomella - Chapters 14, 51, 52, 55, 73, 78, 92, 93, 94, 99, and 115  Cloherty – Chapter 24, 26, 60  Moore & Persaud – Chapter 9    Abduljabbar & Afifi. (2012). [Congenital hypothyroidism.](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed/22570946) *Journal of Pediatric Endocrinology and Metabolic*, 25(1-2): 13-29.  [Adamkin, D. H](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Adamkin%20DH%22%5BAuthor%5D). and the [Committee on Fetus and Newborn](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Committee%20on%20Fetus%20and%20Newborn%22%5BCorporate%20Author%5D) (2011). Postnatal glucose homeostasis in late-preterm and term infants. [*Pediatrics*.](http://www.ncbi.nlm.nih.gov/pubmed/21357346) 127(3): 575-9.  [Bhutani](http://pediatrics.aappublications.org/search?author1=Vinod+K.+Bhutani&sortspec=date&submit=Submit) (The Committee on Fetus and Newborn From the American Academy of Pediatrics) (2011). Phototherapy to Prevent Severe Neonatal Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestation. *Pediatrics*. 128(4): e1046-e1052.  Fernandez & Watterberg, (2009). Relative adrenal insufficiency in the preterm and term infant. [*J Perinatol.*](javascript:AL_get(this,%20'jour',%20'J%20Perinatol.');) 29(Suppl2): S44-9.  Hay. (2012). Care of the infant of the diabetic mother. [*Curr Diab Rep*.](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed/22094826) 12(1): 4-15. Levy, P. A. (2009). Inborn errors of metabolism: Part II. *Pediatrics in Review*, 39(5): e22 Levy, P. A. (2009). Inborn errors of metabolism: Part I. *Pediatrics in Review, 39*(4): 131  Parini & Corbetta. (2011). [Metabolic screening for the newborn.](http://www.ncbi.nlm.nih.gov.lp.hscl.ufl.edu/pubmed/21770861) *Journal of Maternal, Fetal, & Neonatal Medicine,* 24(Suppl 2): 6-8.  Stokowski, L. (2011). Fundamentals of phototherapy for neonatal jaundice. *Advances in Neonatal Care,* 11: S10-21). |
| Week 16  April 21st | Genetics  HUMAN EMBRYOLOGY: Human Birth Defects | Blackburn – Chapter 1, Chapter 3 pages 98-102, and Chapter 6  Gomella - Chapter 63  Cloherty – Chapter 10  Moore & Persaud – Chapter 20  Allen, T. (2012). CHARGE syndrome: Diagnosis and clinical management in the NICU. *Advances in Neonatal Care,* 12: 336-342.  Hartway, S. (2009). A parent’s guide to the genetics of Down syndrome. *Advances in Neonatal Care,* 9(1): 27-30.  **Supplemental readings:**  Reyna, B. & Pickler, R. (1999). Patterns of genetic inheritance. *Neonatal Network,* 18(1): 7-10.  Rios, A., Furdon, S., Adams, D., & Clark, D. (2004). Recognizing the clinical features of Trisomy 13 syndrome. *Neonatal Network,* 4: 332-343.  Shaw, J. (2008). Trisomy 18: A case study. *Neonatal Network,* 27: 33-41.  Trotter, C. & Carey, B. (2003). VATER Association. *Neonatal Network,* 22: 71-75.  Welch, J. & Williams J. (1999). Fragile X Syndrome. *Neonatal Network,* 18(6): 15-22. |
| April 28th finals week |  |  |

**ADDITIONAL COURSE INFORMATION**

Case studies

### Case study schedule

Case study 1 Due Feb 3rd

Case study 2 Due Feb 24th

Case study 3 Due March 24th

Case study 4 Due April 21st

Each patient situation will include History of Present Illness, Past Medical History, Social history, medications (if any), Review of Systems, and Physical Exam, including labs.

For each situation, you will answer the questions asked after the case study. Please keep your answers brief and to the point. Be specific and support your choices with references. If in doubt about how to do any of these case studies, please e-mail me. If there seems to be a common theme in the e-mails I will post to the Main Discussion Board.

This is NOT a formal paper, however I do expect that you use correct grammar and spelling (points will be deducted if you do not). I do not expect you to write the case studies in APA format. Be concise but thorough in your responses to the questions. Do not include a discussion of the pathophysiologic processes involved in the patient’s disease process. Focus on the pharmacologic and clinical interventions that you have chosen. Your papers are to be brief and to the point. You are to talk your way through your thought processes as you choose a treatment regime for your patient and provide rationale. It is expected that you use several current references. Although you may use neonatal text books for references, it is also expected that you include current references.

1. **Treatment including clinical and pharmacologic treatment**
2. **Provide rationale for the treatment regiments you prescribed. Justify your selection over alternatives.**
3. **If pertinent discuss alternative treatment if the recommended treatment should fail, monitoring for efficacy and side effects of the specified treatment**

You must identify the clinical and laboratory parameters necessary to evaluate the therapy for achievement of the desired therapeutic outcome and for detection and prevention of adverse effects. The outcome parameters selected should be directly related to therapeutic goals, and each parameter should have a defined end point. If the goal was to cure bacterial pneumonia, you should outline the subjective & objective clinical parameters (e.g. decreased oxygen requirement), laboratory tests (e.g. normalization of WBC with diff), and other procedures (e.g. resolution of infiltrate on chest x-ray) that provide sufficient evidence of bacterial eradication and clinical cure of the disease.

**CLASS PARTICIPATION**

You are expected to complete the following assignments.

1. Logs

A weekly log is expected and is due each **Friday by 5:00 pm.** This log should include:

a. A short description of your patients

b. What care you provided each patient

c. Procedures

d. Ethical dilemmas (if any were encountered)

e. Problems with staff, preceptor, faculty

f. Problems which may need discussion with faculty preceptor

g. Goals for next week

Faculty will respond to each log in an E-mail. **It is expected that you respond via E-mail to All Questions.**

1. You are required to place at least 4 entries per week on the Sakai discussion board. **This is a required aspect of class participation.**
2. The student attendance sheet must be completed and returned prior to **ALL** scheduled evaluations.
3. All clinical experiences need to be scheduled through faculty. If you schedule clinical on an unauthorized day you will not receive credit for those hours.

DATE: 5/27/09, edits 1/29/10, 2/10/10, 6/11, 12/11, edits 8/12; 5/13