UNIVERSITY OF FLORIDA

COLLEGE OF NURSING

COURSE SYLLABUS

SUMMER 2016

COURSE NUMBER NGR 6321, Section 7101

COURSE TITLE Neonatal Nurse Practitioner 2

CREDITS 4

PLACEMENT DNP Program: Neonatal Nurse Practitioner Track

PREREQUISITES NGR 6320 Neonatal Nurse Practitioner 1

NGR 6320L Neonatal Nurse Practitioner Clinical 1

COREQUISITES NGR 6321L Neonatal Nurse Practitioner Clinical 2

# FACULTY

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| --- | --- | --- | --- |
| Jacqui Hoffman, DNP, NNP-BC  [hoffmanjm@ufl.edu](mailto:hoffmanjm@ufl.edu) | HPNP 2225 | Cell (727) 709 9211 | Office hours: Virtual on Adobe Connect by arranged meeting, Mon. 1:00–5:00 PM; additional hours by appt |
| Clinical Faculty  Leslie A. Parker, PhD, NNP-BC [parkela@ufl.edu](mailto:parkela@ufl.edu) | HPNP 2227 | (352) 273-6384  Beeper#:  (352) 413-3212  Cell (352) 215 9360 | Thurs., 10:00 – 12:00 ; additional hours by appt |

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COURSE DESCRIPTION This course provides the student with in-depth knowledge of advanced nursing practice management of critically ill neonate/infants. Emphasis is on the utilization of relevant theories, critical thinking, and evidence-based knowledge to formulate differential diagnoses, diagnoses, treatment plans, and optimal outcome parameters for physiologically unstable neonate/infants who have complex and critical health problems, are technologically dependent, and are at high risk for developing complications. The focus of this course is complex pulmonary, respiratory support, metabolic, cardiac, neurological, hematologic and commonly occurring health care problems in critically ill neonate/infants.

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

1. Apply knowledge from neonatal and fetal physiology and pathophysiology to formulate management plans for neonate/infants with selected complex and critical health care problems.

COURSE OBJECTIVES (continued)

1. Develop appropriate differential diagnoses and diagnoses based on analysis and interpretation of hypothetical data including history, presenting symptoms, physical findings, and diagnostic information for high risk and critically ill neonate/infants.
2. Analyze the growth and development of selected body structures during gestation identifying common patterns of development.
3. Prioritize acute and chronic problems and provide appropriate interventions including emergency care
4. Facilitate support programs designed to assist the family of the high risk and critically ill neonate/infants.
5. Formulate treatment plans based on current scientific rationale, evidence-based and practice guidelines and standards of care for high risk and critically ill neonate/infants.
6. Propose parameters to evaluate the effectiveness of management plans in achieving optimal outcomes for high risk and critically ill neonate/infants.
7. Discuss collaborative processes of the interdisciplinary health care team in achieving optimal health outcomes for high risk and critically ill infants.
8. Analyze diversity issues related to high risk and critically ill neonate/infants.

COURSE SCHEDULE

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| --- | --- | --- | --- |
|  | Day | Time |  |
| Class | On-line | Classes will be on Mondays from 9 AM - 1 PM on Adobe Connect **except for Friday, May 27th and Tuesday, July 5th**  Neo II Exams on Mondays 9-11AM **except for Tuesday, May 31st**  **Mandatory onsite class June 27th 8:30 AM – 5 PM.** | |

E-Learning in Canvas is the course management system that you will use for this course. E-Learning in Canvas is accessed by using your Gatorlink account name and password at <https://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.

TOPICAL OUTLINE

1. Health maintenance and anticipatory care of the immature and intrauterine growth-retarded infant
2. Embryology, pathology and advanced nursing management of diseases and congenital defects related to the respiratory, gastrointestinal, urogenital, neurologic and metabolic systems.
3. The high risk perinatal family and their adaptation to the crisis of the birth and hospitalization of a critically ill neonate/infant
4. Legal and ethical issues concerning neonatal intensive care such as access to care, regionalization, health care reform, and the development of technology.
5. Management of emergency care in the NICU and delivery room
6. Collaborative processes of the interdisciplinary health care team in achieving optimal health outcomes for high risk and critically ill infants.
7. Diversity issues related to high risk and critically ill neonate/infants.

TEACHING METHODS

Lecture, group discussion, case studies and case presentations, audiovisual materials, and computer assisted instruction.

LEARNING ACTIVITIES

Online and class participation and written assignments.

EVALUATION METHODS/COURSE GRADE CALCULATION

4 Case studies 30% total - 7.5% each

Case Study 1: May 27th

Case Study 2: June 17th

Case Study 3: July 8th

Case Study 4: July 29th

Criteria for case studies will be in course materials at the beginning of term.

3 Examinations 60% total - 20% each

Neo II Exam 1: May 31st

Neo II Exam 2: June 27th

Neo III Exam 3: August 1st

Class Participation 10%

All students are required to place at least 3 entries per week on the Canvas discussion board. This may include submitting new items for discussion or to discuss an issue already introduced. Discussions should be submitted weekly; points will not be awarded for discussions submitted all at one time.

Total 100%

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. Attendance at seminars are required; if unable to attend due to illness or emergency, the course faculty must be notified in advance, and the student will be required to listen to the recorded session and submit a summary of each presentation highlighting areas that increased their understanding of the problem/disease process.

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: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

PROFESSIONAL BEHAVIOR

The College of Nursing expects all Nursing students to be professional in their interactions with patients, colleagues, faculty, and staff and to exhibit caring and compassionate attitudes. These and other qualities will be evaluated during patient contacts and in other relevant settings by both faculty and peers. Behavior of a Nursing student reflects on the student's individual’s ability to become a competent professional Nurse. Attitudes or behaviors inconsistent with compassionate care; refusal by, or inability of, the student to participate constructively in learning or patient care; derogatory attitudes or inappropriate behaviors directed at patients, peers, faculty or staff; misuse of written or electronic patient records (e.g., accession of patient information without valid reason); substance abuse; failure to disclose pertinent information on a criminal background check; or other unprofessional conduct can be grounds for disciplinary measures including dismissal.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>. Students are required to provide their own privacy screen for all examination’s administered to student laptops. No wireless keyboards or wireless mouse/tracking device will be permitted during examinations.

University and College of Nursing Policies:

Please see the College of Nursing website for a full explanation of each of the following policies - <http://nursing.ufl.edu/students/student-policies-and-handbooks/course-policies/>.

Attendance

UF Grading Policy

Accommodations due to Disability

Religious Holidays

Counseling and Mental Health Services

Student Handbook

Faculty Evaluations

Student Use of Social Media

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 Anniversary* (7th ed.). McGraw-Hill Professional Publishing. ISBN: 9780071768016.

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

Young, T. E., & Mangum, B. (Most recent edition – available online). *Neofax.*

RECOMMENDED TEXTBOOK

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

NGR 6321

Summer 2016

**WEEKLY CLASS SCHEDULE**

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| **Date** | **Topic** | **Readings** |
| Week 1-3  May 9th, 16th and 23rd  Guest lecturer May 23rd:  Anne Marie Cowell, RRT | 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 11, 18, 120, and 135  Cloherty – Chapters 36, 39, 62  Moore & Persaud - Chapters 8, 10    Bengtsson, B-O. (2013). Neonatal lymphatic (chylous) disorders. *NeoReviews,* 14(12): e600-612.  Benjamin, J. (2011). Congenital diaphragmatic hernia: Updates and outcomes. *NeoReviews,* 12(8): e439-e452.  Fowler, D. & Gould, S. (2015). The pathology of congenital lung lesions. *Seminars in Pediatric Surgery,* 24(4):176-82.  Puligandla, P., Grabowski, J., Austin, M., Hedrick, H., Renaud, E. et al. (2015). Management of congenital diaphragmatic hernia: A systematic review from the APSA outcomes and evidence based practice committee. *Journal of Pediatric Surgery,* 50(11): 1958-70.  Putiyachirakkal, M., & Mhanna, M. (2013). Pathophysiology, management, and outcome of persistent pulmonary hypertension of the newborn: A clinical review. *Frontiers in Pediatrics,* 1:23. doi: 10.3389/fped.2013.00023. |
|  | Neonatal Respiratory Care | Gomella - Chapter 8, 45  Cloherty – Chapter 29-30  Flanagan, K. (2016). Noninvasive ventilation in premature neonates. *Advances in Neonatal Care,* 16(2): 91-98.  Keszler, M. (2013). Update on mechanical ventilator strategies. *NeoReviews,* 14(5): e237-e251.  Lozano, S., & Newman, K. (2016). Modalities of mechanical ventilation: Volume-targeted versus pressure-limited. *Advances in Neonatal Care,* 16(2): 99-107.  Petty, J. (2013) Understanding neonatal ventilation: Strategies for decision making in the NICU. *Neonatal Network,* 32(6): 246-261.  **Supplemental Readings:**  **Donn & Sinha - *Manual of Neonatal Respiratory Care – Chapters 8-10, Chapters 25-38***  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(2): E1-E9. |
| May 27th | Neo II Case Study 1 Due |  |
| Weeks 4 and 5  Memorial Day – No class  Class will be held May 27th  June 6th class will be recorded  Neo II Exam I – Tuesday, May 31st (Weeks 1-3 material only) | MANAGEMENT OF CARDIOVASCULAR PROBLEMS: Congenital Heart Defects; Medical and Surgical Interventions: Manifestation, Complications and Treatment of Congestive Heart Failure, Hydrops  **Human Development**: Cardiovascular system | **Required readings:**  Gomella Chapters 11, 48, 51, 89, and 118  Cloherty – Chapters 40, 41  Moore, Chapter 13  Balakrishnan, P., & Juraszek, A. (2012). Pathology of congenital heart disease. *NeoReviews,* 13(12): e703-e710.  Carella, D. (2015). Brain natriuretic peptide: It’s not about the brain or just another smart polypeptide – It’s about the heart. *Neonatal Network,* 34(6): 355-359.  Chock, V., & Lee, H. (2014). Neurodevelopmental outcomes for infants born with congenital heart disease. *NeoReviews,* e344-e353.  **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.  Brock, W. & Bradshaw, W. (2016). Congenital chylothorax: A unique presentation of nonimmune hydrops fetalis in a preterm infant. *Advances in Neonatal Care,* 16(2): 114-123.  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.  **HLHS:**  Ellinger, M. K. & Rempei, G. R. (2010). Parental decision making regarding treatment of hypoplastic left heart syndrome. *Advances in Neonatal Care,* 10: 316-322.  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:**  Canter C. et al. (2007). Indications for heart transplantation in pediatric heart disease: a scientific statement from the American Heart Association Council on Cardiovascular Disease in the Young; the Councils on Clinical Cardiology, Cardiovascular Nursing, and Cardiovascular Surgery and Anesthesia; and the Quality of Care and Outcomes Research Interdisciplinary Working Group. *Circulation,* 115(5): 658-76.  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.  Mok, Y., Lee, J., & Cheifetz, I. (2016). Neonatal extracorporeal membrane oxygenation: Update on management strategies and long-term outcomes. *Advances in Neonatal Care,* 19(1): 26-36.  Prine, K., Goracke, K., & Rubarth, L. (2015). Extracorporeal membrane oxygenation in the NICU. *Neonatal Network,* 34(3): 183-188. |
| Week 6  June 13th (recorded) | Management of Gastrointestinal Problems  **Human Development:**  Alimentary System | Blackburn – Chapter12  Gomella - Chapters 11, 49, 54, 55, 67, 69, 113, 131, 133 and 134  Cloherty – Chapters 27, 62  Moore & Persaud - Chapter 11  De Silva, N., Young, J. & Wales, P. (2006). Understanding neonatal bowel obstruction: Building knowledge to advance practice. *Neonatal Network*, 25(5): 303-318.  Gephart, S., McGrath, J., & Effken, J. (2012). Necrotizing enterocolitis risk: State of the science. *Advances in Neonatal Care,* 12: 77-87.  Hartz, L., Bradshaw, W., & Brandon, D. (2015). Potential NICU environmental influences on the neonate’s microbiome: A systematic review. *Advances in Neonatal Care,* 15(5): 324-335.  Kastenberg, Z., & Dutta, S. (2013). Ventral abdominal wall defects. *NeoReviews,* e402-e411.  Neu, J. & Walker, W. (2011). NEC. *New England Journal of Medicine,* 364(3): 255-264.  Raval, M., & Moss, R. (2013). Surgical necrotizing enterocolitis: A primer for the neonatologist. *NeoReviews,* e393-e401.  Sherrow, T., Dressler-Mund, D., Kowal, K., Dai, S., Wilson, M., & Lasby, K. (2014). Managing gastroesophageal reflux symptoms in the very low-birth-weight infant postdischarge. *Advances in Neonatal Care,* 14(6): 381-391.  Tiwari, C., Sandlas, G., Jayaswal, S., & Shah, H. (2015). Spontaneous intestinal perforation in neonates. *Journal of Neonatal Surgery,* 4(2): 14. |
| June 17th | Neo II Case Study 2 Due |  |
| Week 7  June 20th | SPRING BREAK |  |
| Week 8  **Onsite** June 27th  8:30 AM – 5:00 PM  Neo II Exam 2 | Sim Lab |  |
| Weeks 9  July 4th - Holiday  Class – July 5th | Management of Neurologic Problems  HUMAN EMBRYOLOGY:  Nervous system | Blackburn – Chapter 15  Gomella - Chapters 11, 16, 77, 98, 103, 104, 114, 119, and 129  Cloherty – Chapters 54-57  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.  Committee on Fetus and Newborn, Papile et al. (2014). Hypothermia and neonatal encephalopathy. *Pediatrics,* 133(6): 1146-50.  Donovan, M., Griffin, B., Kharoshankaya, L., Cryan, J., & Boylan, G. (2016). Pharmacotherapy for neonatal seizures: Current knowledge and future perspectives. *Drugs,* 76: 647-661.  Douglas-Escobar, M. & Weiss, M. (2015). Hypoxic-ischemic encephalopathy: A review for the clinician. *JAMA Pediatrics,* 169(4): 397-403.  Gano, D. (2016). White matter injury in premature newborns. *Neonatal Network,* 35(2): 73-77.  Glass, H. (2014). Neonatal seizures: Advanced in mechanisms and management. *Clinics in Perinatology,* 41(1): 177-190.  Kaltenbach, K. & Jones, H. (2016). Neonatal abstinence syndrome: Presentation and treatment considerations. *Journal of Addiction Medicine* [Epub ahead of print]. doi: 10.1097/ADM.0000000000000207.  Maguire, D. (2013). Mothers on methadone: Care in the NICU. *Neonatal Network, 32:* 409-415.  Peranteau, W. & Adzick, N. (2016). Prenatal surgery for myelomeningocele. *Current Opinions in Obstetrics & Gynecology,* 28(2): 111-8.  Robinson S. (2012). Neonatal posthemorrhagic hydrocephalus from prematurity: pathophysiology and current treatment concepts. *Journal of Neurosurgery. Pediatrics.* 9(3): 242-58.  Sewell, M., Chiu, Y., & Drolet, B. (2015). Neural tube dysraphism: Review of cutaneous markers and imaging. *Pediatric Dermatology,* 32(2): 161-170.  Shah, N., & Wusthoff, C. (2016). Intracranial hemorrhage in the neonate. *Neonatal Network,* 35(2): 67-71.  Sussman, C. & Weiss, M. (2013). While waiting: Early recognition and initial management of hypoxic-ischemic encephalopathy. *Advances in Neonatal Care,* 13(6): 415-423.  **Supplemental readings:**  Brand, M. Sacral Dysraphism. *Advances in Neonatal Care*  Part II: (2006). 6(4): 181-196  Part III: (2007). 7(1): 30-40. |
| July 8th | Neo II Case Study 3 Due |  |
| Week 10  July 11th | Management of Neurologic Problems (Continued)  HEMATOLOGIC PROBLEMS: Fetal and Neonatal Hematopoiesis, Clotting Disorders, Anemia, Congenital Leukemia. | See above  **Required Readings:**  Blackburn, Chapters 8 and 18  Cloherty, Chapters 42-47  Gomella, Chapters 82, 87, & 139  Chandrakasan, S. & Kamat, D. (2013). An overview of hemoglobinopathies and the interpretation of newborn screening results. *Pediatric Annals,* 42(12): 502-8.  Colombatti, R., Sainati, L., & Trevisanuto, D. (2016). Anemia and transfusion in the neonate. *Seminars in Fetal & Neonatal Medicine,* 21: 2-9.  Jaffray, J., Young, G., & Ko, R. (2016). The bleeding newborn: A review of presentation, diagnosis and management. *Seminars in Fetal & Neonatal Medicine,* 21(1): 44-49  Mettling, K., Murcek, K., & Rubarth, L. (2013). Malignancies and tumors in the neonate. *Neonatal Network,* 32(1): 34-40.  Motta, M., Del Vicchio, A., & Radicioni, M. (2011). Clinical use of fresh-frozen plasma and cryoprecipitate in neonatal intensive care unit. *Journal of Maternal, Fetal, and Neonatal Medicine,* 24 Suppl 1: 129-31.  Saxonhouse, M. (2015). Thrombosis in the neonatal intensive care unit. *Clinics in Perinatology,* 42(3): 651-73.  Sillers, L., Van Slambrouck, C., & Lapping-Carr, G. (2015). Neonatal thrombocytopenia: Etiology and diagnosis. *Pediatric Annals,* 44(7): e175-80.  Strauss, R. (2010). Anemia of prematurity: Pathophysiology and treatment. *Blood Reviews,* 24(6): 221-5.  Woods, C., Woods, A., & Cederholm, C. (2013). Vitamin K deficiency bleeding: A case study. *Advances in Neonatal Care,* 13(6): 402-7.  **Supplemental Readings**  Beachy, J. (2011). Neonatal alloimmune thrombocytopenia: A case study. *Neonatal Network,* 30(6): 402-7.  Bell, S. (1999). An introduction to hemoglobin physiology. *Neonatal Network,* 18(2): 9-15.  Bruwier, A., & Chantrain, C. (2012). Hematological disorders and leukemia in children with Down syndrome. *European Journal of Pediatrics,* 171(9): 1301-7.  Elser, H. (2012). Is Lasix after a blood transfusion necessary? *Advanced in Neonatal Care,* 12(6): 369-70.  LaGamma, E. (2012). Introduction to transfusion practices in neonates: Risks, benefits and alternatives. *Seminars in Perinatology,* 36(4): 223-4.  Rubarth, L. (2011). Blood types and ABO incompatibility. *Neonatal Network,* 30(1): 50-3.  Rubarth, L. (2012). Glucose-6-Phosphatase and Glucose-6-Phosphate Dehydrogenase deficiency: How are they different? *Neonatal Network,* 31(1): 45-7.  Rhoderick, J. & Bradshaw, W. (2008). Transient myeloproliferative disorder in a newborn with Down Syndrome. *Advanced in Neonatal Care,* 8(4): 206-18.  Rutherford, M, Ramenghi, L., & Cowan, F. (2012). Neonatal stroke. *Archives of Disease in Childhood, Fetal & Neonatal Edition,* 97(5): F377-84. |
| Week 11 and 12  July 18th and 25th | Problems in Metabolic Adaptation and Uterine Growth  **Human Development**: Pharyngeal Apparatus, Face, and Neck | Blackburn - Chapters 17 and 19  Gomella - Chapters 15, 57-59, 62, 64, 85, 91, 99-102, 105, 107, 116, and 140  Cloherty – Chapter 24-26, 59-61  Moore & Persaud – Chapter 9    Abduljabbar, M. & Afifi, A. (2012). Congenital hypothyroidism. *Journal of Pediatric Endocrinology and Metabolic*, 25(1-2): 13-29.  Adamkin, D. and the Committee on Fetus and Newborn. (2011). Postnatal glucose homeostasis in late-preterm and term infants. *Pediatrics,* 127(3): 575-9.  Ah Mew, N., Kirmse, B., & Chapman, K. (2015). Deconstructing black swans: An introductory approach to inherited metabolic disorders in the neonate. *Advances in Neonatal Care,* 15(4): 241-247.  [Bhutani](http://pediatrics.aappublications.org/search?author1=Vinod+K.+Bhutani&sortspec=date&submit=Submit), V. and 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.  Chung, H. (2014). Adrenal and thyroid function in the fetus and preterm infant. *Korean Journal of Pediatrics.* 57(10): 425-433. Levy, P. (2009). Inborn errors of metabolism: Part II. *Pediatrics in Review*, 39(5): e22 Levy, P. (2009). Inborn errors of metabolism: Part I. *Pediatrics in Review, 39*(4): 131  Parini, R. & Corbetta, C. (2011). Metabolic screening for the newborn. *Journal of Maternal, Fetal, & Neonatal Medicine,* 24(Suppl 2): 6-8.  Rubarth, L. (2013). Infants of diabetic mothers. *Neonatal Network,* 32(6): 416-418.  Schmaltz, C. (2012). Thyroid hormones in the neonate: An overview of physiology and clinical correlation. *Advances in Neonatal Care,* 12(4): 217-224.  Schoenmakers, N., Alatzoglou, K., Chatterjee, V., & Dattani, M. (2015). Recent advances in central congenital hypothyroidism. *Journal of Endocrinology,* 227(3): R51-R71.  Srinivas, G., Cuff, C., Ebeling, M., & Mcelliqott, J. (2016). Transcutaneous bilirubinometry is a reliable conservative method of assessing neonatal jaundice. *Journal of Maternal-Fetal & Neonatal Medicine,* 29(16): 2635-9.  Stokowski, L. (2011). Fundamentals of phototherapy for neonatal jaundice. *Advances in Neonatal Care,* 11(5 Suppl): S10-21.  Williams, F., Delahunty, C., & Cheetham, T. (2013). Factors affecting neonatal thyroid function in preterm infants. *NeoReviews,* 14(4): e168-e178. |
| July 29th | Neo II Case Study 4 Due |  |
| August 1st  Neo II Exam 3 (9-11) |  |  |