CPSY 540   Applied Developmental Neuropsychology
Summer Session 1, 2008

Thursday: May 8 – June 26 & Saturday, June 7th, 2008

Instructor: Colleen M. Hanson, Ed.D.
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Office Hours: By appointment

Text: 1. How The Brain Learns. D. Sousa (2006)   **(Optional)**
                    2. Acquired Brain Injury: From Hospital to School & Beyond.
                       C.M. Hanson & M.E. Colwell (2001).   **(Required**)**
                         &
                    3. Articles

                    ** Purchased in first class   ($25)

Course Description:

This course offers the student a conceptual overview of the field of Neuropsychology from both developmental and applied perspectives. During this course students will explore theories and principles of Neuropsychology and their relationship to practice in school and mental health settings. Students will have a basic understanding of brain anatomy and function and the effect a variety of diseases and conditions have on the developing brain. Also covered will be how these various conditions manifest themselves in the educational setting in the areas of learning and memory and what services might be available to students with acquired brain and other neurodevelopmental injuries under the IDEA (Individuals with Disabilities Education Act).

Goals & Objectives:

At the completion of this course, each student will:

- Have a conceptual framework of Neuropsychology and its implications for school and mental health settings
- Have a basic understanding of normal and abnormal neurodevelopment from birth through adulthood
- Have a basic knowledge of the anatomy and functions of the brain

- Gain an overview of psychopharmacology as it relates to the brain and is applied in practice
- Become familiar with the neurological and educational aspects/implications of a variety of medical conditions of the brain, such as:
  1. Fetal Alcohol Syndrome
  2. Substance Abuse & other toxic products (inhalants, etc.)
  3. Strokes & other vascular accidents
  4. Attentional Disorders
  5. Seizure Disorders (epilepsy)
  6. Tumors of the brain
  7. Cerebral Palsy
  8. Shaken Baby (Sudden Impact, Shaken Impact) Syndrome
  9. Pharmacology
  10. Concussions vs Comas
  11. Post-Traumatic Stress Disorder
  12. Learning Disabilities/Dyslexia
  13. Amnesia
  14. Behavior-Brain Relationships

- Be introduced to a selection of neuropsychological assessment tools and understand their role in the assessment and identification of memory, learning, and brain dysfunction. Examples of instruments would be:
  1. Children's Memory Scale (CMS)
  2. Wechsler Memory Scale – Third Edition (WMS-III)
  3. Developmental Assessment of Neurological Functions (NEPSY)
  4. Wide Range Assessment of Memory and Learning (WRAMAL)

Students will:

1. **Prepare a 6-8 page research paper on one of the medical conditions of the brain listed above and make a formal class presentation.** Each research paper will:
   a. Have cited references (at least 6) – format to be discussed in class
   b. Be presented in class with group discussion (15-20 min.)
   c. Be copied for class members and be distributed at the time of presentation (1 for me which will be returned to you with my comments)
   d. Include a discussion of:
      i. Structures of the brain involved
      ii. Symptoms
      iii. Prevalence in the population
      iv. Educational implications
      v. Vocational/social implications
      vi. Implications at various developmental stages
      vii. Prognosis

NOTE: Tables, outlines, graphs, drawings, and references are **<u>in addition</u>** to the **6-8 page**s

      2.   **Prepare 3 individual critiques/reaction papers on the following articles (2 pages each)**
   1. Fertile Minds (Time Magazine/February, 1997)
   2. The Quest for a Super Kid (Time Magazine/April, 2001)
   3. Alcohol & the Brain (US News/May, 2001)

      3.   **Complete the Take-Home Final**

Grades:

Research Paper/Presentation	=	**25%**
Article Critique # 1	=	**5%**
Article Critique # 2	=	**5%**
Article Critique # 3	=	**5%**
Take-Home Final	=	**<u>60%</u>**
TOTAL	=	**100%**

Grade Distribution:

98-100	=	**A+**	
93-97	=	**A**	
90-92	=	**A-**	
87-89	=	**B+**	
83-86	=	**B**	
80-82	=	**B-**	**…etc., etc., etc. …**