

CPSY 540 **Applied Developmental NeuroΨ -Summer Semester 2002**

Wednesday **5:15pm-9:00pm**
May 15-June 26 & Saturday, June 22, 2002 (8:30 am)

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

Text: (Required) **Acquired Brain Injury: From Hospital to School and Beyond; C. M. Hanson & M. E. Colwell, (2001).**
&
Articles

[purchased in first class]

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.

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
- 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. WISC-III:PI (WISC-III as a processing instrument)
- 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 on the brain such as:
 1. Traumatic Brain Injury

2. Fetal Alcohol Syndrome
3. Substance Abuse (recreational drugs) & other toxic products (inhalants, etc.)
4. Anoxic Injuries (cardiac arrest, near drownings, lightning strikes)
5. Strokes & other vascular accidents
6. Attentional Disorders
7. Seizure Disorders (epilepsy)
8. Infectious diseases (encephalitis, meningitis) / metabolic disorders (kidney, liver)
9. Tumors of the brain
10. Cerebral Palsy
11. Multiple Sclerosis
12. Tourettes Syndrome
13. Shaken Baby (Sudden Impact, Shaken Impact) Syndrome
14. Pharmacology
15. Multiple Intelligences
16. Concussions
17. Post-Traumatic Stress Disorder
18. Spina Bifida
19. Parkinson's
20. or Syndrome topic of your choice which has cognitive/neurological implications

- prepare an **10 page** research paper (single-spaced) on a selected topic (from above) and make a **formal** class presentation - each research paper will:

1. have cited references (at least 6) - format to be discussed in class
2. be presented in class with group discussion (20 min.)
3. be copied for class members and be distributed at the time of presentation (1 for me, I will return it to you with my comments)
4. include a discussion of:
 - a. structures of the brain involved
 - b. symptoms
 - c. prevalence in population
 - d. educational implications
 - e. vocational implications
 - f. implications at various developmental stages
 - g. prognosis

NOTE: tables, outlines, graphs, drawings, and references are in addition to 10 page requirement

- prepare 3 critiques of articles passed out in class (write-up **2 pages** [single-spaced] each)
 1. Fertile Minds (Time Magazine/February, 1997)
 2. The Quest for a Super Kid (Time Magazine/April, 2001)
 2. Alcohol & the Brain (US News/May, 2001)
- complete a Take-Home Final

Grade:

Research Paper with Presentation = 50%

Article Critiques	=	30%
Take-Home Final	=	<u>20%</u>
		100%

Grade Distribution:

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