CPSY 540 Applied Developmental Neuropsychology
Spring 2011

Thursday: Feb. 3 – March 31 & Saturday, March 12, 2011
Thursday: 5:15-8:30 pm

Faculty: Colleen M. Hanson, Ed.D.
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503-768-6093
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Office Hours: Thurs. & Fri. afternoons: *By appointment only*

Text(s):
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). 2 semester hours; prerequisites: CPSY 541, 542, 543).

Professional Standards:

Students are expected to follow professional standards, including adherence

Students are expected to follow professional standards, including adherence to legalities and ethics. In addition, students need to show a respectful demeanor towards students, parents, professional peers, and others. Students need to be timely in completing work: they must honor class attendance and hours. Department policy is that students may miss ***one*** class each semester, with appropriate make-up work. If two classes are missed, the student is in danger of failing the class. If students miss a class, they need to discuss ***required*** make-up work with the instructor. Students are expected to use appropriate

professional tools, including technological tools, as needed and appropriate. Students are expected to be aware of and respect diversity and multicultural issues.

Students with Special Needs:

The **Student Support Services Office**, located in the **Templeton Student Center** (main campus), is a resource for students with disabilities. A variety of services are available through this office according to the particular needs of each student. Students interested in these services may contact the **Student Services Office** at **503-768-7191**. This contact is the necessary first step for receiving appropriate accommodations and support services. Please inform me, if you need accommodations in our class.

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
  [NASP Domains: 2.4 (Socialization and Development of Life Skills) & 2.7 Prevention, Crisis Intervention, & Mental Health)
- Have a basic understanding of normal and abnormal neurodevelopment from birth through adulthood
  [NASP Domains: 2.4 & 2.5 (Student Diversity in Development and Learning)
- Have a basic knowledge of the anatomy and functions of the brain
  [NASP Domains: 2.1 (Data-Based Decision Making & Accountability)
- Gain an overview of psychopharmacology as it relates to the brain and is applied in practice
  [NASP Domains 2.7]
- 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 & Comas
  11. Post-Traumatic Stress Disorder
  12. Learning Disabilities/Dyslexia
  13. Acquired Brain Injuries

  [NASP Domains: 2.1;2.3 (Effective Instruction and Development of Cognitive /Academic Skills) & 2.4]

- Build on their current knowledge of assessment and assessment tools and how they relate to memory and learning, behavior and brain dysfunction. Examples of instruments would be:
    1. WISC-IV
    2. WJIII-Cog
    3. Stanford Binet-IV
    4. DAS-II

    [NASP Domains: 2.1, 2.4 & 2.5]

- 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-22 (NEPSY-2)
    4. Wide Range Assessment of Memory and Learning-2 (WRAMAL-2)
    5. Behavior Rating Inventory of Executive Functions (BRIEF)

    [NASP Domains 2.1 & 2.5]

Students will:

1. **Prepare a 4-6 page research paper on one of the medical conditions of the brain listed above (or one of their choosing – permission of instructor required) and make a formal class presentation.** Each research paper will:
    a. Have cited references (at least 4) – format to be discussed in class
    b. Be presented in class with group discussion (15 min.)
    c. Be available (via email) for class members. A 1 page summary will be distributed to the class at the time of presentation**

**** Bring one copy of both summary and completed research paper for me on the night of your presentation. It will be returned to you with my comment**

    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: Summary, tables, outlines, graphs, drawings, and references are **<u>in addition</u>** to the **4-6 page**s

2. **Prepare 4 individual reaction papers on the following articles (2-3 pages each)**
   1. Fertile Minds (Time Magazine/February, 1997)
   2. The Brain: A User's Guide (Time Magazine/January, 2007) (select one article)
   3. DVD 1
   4. DVD 2

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

Grades:

Research Paper/Presentation		**=**	**20%**
Article Reaction # 1		**=**	**10%**
Article Reaction # 2		**=**	**10%**
DVD Reaction # 3		**=**	**10%**
DVD Reaction # 4		**=**	**10%**
Take-Home Final		**=**	**40%**
	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. …**

NON-DISCRIMINATION POLICY AND SPECIAL ASSISTANCE

Lewis and Clark College adheres to a nondiscriminatory policy with respect to employment, enrollment, and program. The College does not discriminate on the basis of race, color, creed, religion, sex, national origin, age, handicap or disability, sexual orientation, or marital status and has a firm commitment to promote the letter and spirit of all equal opportunity and civil rights. If you need course adaptations or accommodations because of a disability (see section Students with Special Needs) and/or you have a emergency medical information to share please make an appointment with the instructor as soon as possible.

CPSY 540 Applied Developmental Neuropsychology
Spring: February-March 2011

CALENDAR

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Rogers Hall Room #433

February 3rd (Class 1)

1. Overview of Course, Review of Syllabus, Selection of Research Topic
2. Discussion of Take-Home Final
3. Hand Outs, Text & Reading Assignments
4. Acquired Brain Injuries
5. IDEA Eligibilities & Acquired Brain Injuries
6. DVD: Something about the Brain 1

February 10th (Class 2)

1. Early Theorists and the Brain
2. Brain Development
3. Normal Development in the Young Child
4. DVD: Something about the Brain 2
5. **Article 1 Reflection DUE: Fertile Minds**
6. **Read: Hanson pgs 1-38**

February 17th (Class 3)

1. Structures of the Brain
2. Traumatic Brain Injuries
3. Video: Faces of Brain Injury
4. **DVD 1 Reflection DUE**
5. **Read: Hanson pgs 38-43; Sousa Handout; Basic Brain Facts; Hanson Handout: TBI**

February 24th (Class 4)

1. Cognitive Sequelae & Educational Implications following Brain Injuries
2. Comparing & Contrasting ABI with other IDEA Disability Categories
3. **DVD 2 Reflection DUE**

March 3rd (Class 5)

1. Memory and Student Learning
2. **Read: Sousa Handout: Memory, Retention & Learning**
3. **Article 2 Reflection DUE**

March 10th (Class 6)

1. Evaluating Memory & Learning
2. Overview: Test Instruments for School-Based Neuropsychology

March 12th (Class 7) SATURDAY

Please bring something to share for breakfast. I'll bring juice & coffee.

1. Executive Functions and Learning
2. Accommodations, Modifications & Recommendations
3. **Read: Hanson pgs 43-74 to end; Handout: Executive Functioning**

March 17th (Class 8)

1. Neuropsychological Implications of the "BIG 4": WISC-IV, DAS-2 & WJIII
2. **Research Presentations**

1.
2.
3.
4.
5.
6.
7.
8.

March 24th (Spring Break-No Class)

March 31st (Class 9) LAST CLASS

Please bring a salad or something to share & I'll bring Pizza/Drinks

1. Looking Ahead in School Psychology

2. **TAKE-HOME FINAL due**
3. **Course Evaluations due**
4. ***All* article/DVD reflections due**
5. **Research Papers**

Research Presentations

1.
2.
3.
4.
5.
6.
7.
8.