CLP 4420 (Sec 5159): INTRODUCTION TO NEUROPSYCHOLOGY

College of Public Health & Health Professions
Department of Clinical & Health Psychology

Spring 2015
3 Credit Hours

Monday 5:10-8:10
HPNP G312

Instructor Information
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Course Overview

This course provides an introduction to the science and practice of clinical neuropsychology, including the anatomic, functional, and cognitive substrates underlying human behavior and neuropsychological disorders.

Course Objectives and/or Goals

Upon successful completion of the course, students will have acquired an understanding of the concepts and terminology essential to the field of clinical neuropsychology, including:

- the role of neuropsychology in the interdisciplinary study and treatment of clinical disorders of higher cognitive function
- the historical origins and future directions of neuropsychology
- key methods and major assumptions in neuropsychology research and clinical practice
- functionally relevant neuroanatomy
- primary cognitive domains and related neuropsychological disorders, including their assessment and treatments
- lifespan issues in neuropsychology, including pediatric and geriatric disorders, and the role of neuroplasticity in the brain's response to injury and interventions
- professional issues, including ethical guidelines, training requirements, and career options.

Course Materials

Recommended textbook: Zillmer, E.A., Spiers, M.V., & Culbertson, W.C. (2008). *Principles of Neuropsychology: 2nd Edition*, Thomson Wadsworth Publishers.
Online Materials: Required readings not found in the textbook will be posted via the University's E-learning system/Sakai at http://lss.at.ufl.edu

Supplemental and Optional Readings/Resources: Additional articles, videos, and tutorials will also be posted on Sakai.

- ***NOTE: All readings posted online are for educational purposes only and should not be duplicated or redistributed.***

What to Expect

The human brain is arguably the most complex organ of the body; as a result, understanding its function – and dysfunction – can be both fun and challenging. My goal is to provide you with the necessary tools and resources to succeed in this course. Therefore, ***you can expect me to:***

- Be passionate about the material and do my best to facilitate interest and learning
- Post PowerPoint files of each lecture on the course website (every effort will be made to post these by the morning before each class, if not earlier)
- Integrate videos, case studies, and guest presentations into class lectures wherever feasible
- Provide supplemental readings, tutorials and videos to enhance learning
- Be available during weekly office-hours in person
- Provide opportunities to review material before each exam

In return, ***I expect you to:***

- Attend class.
- Participate: In addition to simply attending class, we hope and expect that you will ask questions, make comments, and otherwise contribute in class.
- Read: This course covers a fairly large amount of material, and readings have been carefully selected to help you learn and understand the topics discussed in lecture.
- Be respectful and professional with classmates, instructors, and guest speakers. Professional behavior includes arriving on time for class and turning off all cellphones and other personal electronic devices. In class, laptops, tablets, etc., should be used for viewing slides and taking notes, NOT for surfing the web or other non-academic activities.

Course Requirements/Evaluation/Grading

Final grades will be based on attendance/participation, one paper assignment, and three exams:

Exam 1 (Feb. 9): 25%
Exam 2 (March 23): 25%
Paper (April 6) 25%
Exam 3 (April 20): 25%

I do not plan to include any in-class quizzes. However, I reserve the right to perform unannounced quizzes if attendance and/or reading become problematic.

Exams and participation will each be assigned a number of points in proportion to its contribution to the final grade. Points will be summed and letter grades will be assigned according to the percentage of total points possible. All grades will be rounded (up or down) to the nearest integer. Grading is based on percentage cut-offs as follows:

Percentage or points earned in class	**93%-100%**	**90%-92%**	**87%-89%**	**83%-86%**	**80%-82%**	**77%-79%**	**73%-76%**	**70%-72%**	**67%-69%**	**63%-66%**	**60%-62%**	**Below 60%**
Letter Grade equivalent	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

Each exam will cover a fair bit of material and will be challenging. The best way to do well is to stay actively involved in the class and in the course material (e.g., take notes, quiz yourself, form study

groups, read ahead). I will provide study questions to guide your preparation. Answering these questions is one of the best ways to study. I do not require you to complete the study questions, but I highly recommend doing so.

Paper Assignment: Each student will be expected to complete one paper assignment, which will account for 25% of the final course grade, due April 6, 2015 at 5pm. The paper will consist of a critique of a research article in neuropsychology. Students will choose one article to critique from a list of articles provided for this purpose. Specific format for subsections of the paper, as well as a scoring rubric, are forthcoming. Papers should be 3-5 typed, double-spaced pages in Arial 11-12 point font with 1" margins. Students will submit the paper electronically in Sakai by the due date/time.

Extra credit: Extra credit assignments may be added during the semester as appropriate. Completion of any/all of these assignments can only help your grade; it cannot hurt it.

The grading system used in this course is consistent with University-wide policies; more information can be found at https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Policy Related to Make-up Exams or Other Work

Students are expected to attend and be prepared to participate in all class sessions and exams. Personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis. Absence from an exam for appropriate professional obligations (e.g., graduate, professional, or medical school interviews) is permissible but should be avoided if possible, and must be preapproved by the course instructor. If a make-up exam is required due to professional obligations or health reasons, documentation (e.g., doctor's note, a conference agenda, and some proof of your role as a speaker or attendee) will be required. Approved make-up exams must take place within 7 days of the originally scheduled exam date at a time mutually agreed upon by the instructor and student.

Course Outline

The following is a list of topics and readings for the course. Students will be promptly notified of any necessary changes to this outline.

Classes 1-3: Introduction, Methods and Anatomy		
Jan 12: INTRODUCTION AND HISTORY Class 1 Welcome, Course Syllabus Review	*Lecture Topics:* Neuropsychology and Clinical Neuroscience History of Neuropsychology	*Readings:* Zillmer, Spiers & Culbertson: • Chapter 1: A History of Neuropsychology
Jan 19: NO CLASS (Martin Luther King Holiday)		
Jan 26: ORGANIZATION OF THE BRAIN AND BEHAVIOR Class 2	*Lecture Topic:* Clinically-relevant functional neuroanatomy: General principles and functional systems	*Readings:* Zillmer, Spiers & Culbertson: • Chapter 4: Cells of Thought • Chapter 5: Functional Neuroanatomy • Chapter 6: Cerebral Specialization (pp. 155-167)
Feb 2: RESEARCH AND CLINICAL METHODS Class 3	*Lecture Topics:* Experimental methods Clinical methods of assessment	*Readings:* Zillmer, Spiers & Culbertson: • Chapter 2: Methods of Investigating the Brain • Chapter 3: Neuropsychological Assessment and Diagnosis
Feb 9: EXAM 1 (Classes 1-3)		
Classes 4-8: Cognitive Domains and Disorders		
Feb 16: LANGUAGE AND APHASIA Class 4	*Lecture Topics:* Overview of Language Acquired and Developmental Language Disorders	*Readings:* Online/Sakai: • Kolb & Whishaw: Chapter 19: The Origins of Language *Optional Reading:* • Sacks, O. (2005). Recalled to life: When patients suffer a loss of language, must they also lose their sense of self? The New Yorker, October 31, 46-53.
Feb 23: ATTENTION AND PERCEPTION Class 5	*Lecture Topics:* Visuospatial Abilities, Attention, Neglect, Agnosia *Key Topics/Disorders:* Attentional dysfunction	*Readings:* Zillmer, Spiers, & Culbertson: • Chapter 9: pp. 240-246 On course website: Selections from Kolb & Whishaw: • Chapter 13: The Occipital Lobes

	Sensory perception Visuospatial processing Visual Agnosia (object, face agnosia) Hemispatial Neglect Topographical Disorientation	○ pp. 323-325 ("Visual Functions Beyond the Occipital Lobes") ○ pp. 330-340 (beginning with "Disorders of Cortical Function") • Chapter 14: The Parietal Lobes ○ pp. 345-364 • Chapter 15: The Temporal Lobes *Optional Readings:* • Bisiach, E. & Luzzatti, C. (1978). Unilateral neglect of representational space, Cortex, 14, 129–133. • Farah, M. J. & Feinberg, T. E. (2000). Visual object agnosia. In M. J. Farah & T. E. Feinberg (Eds.), Patient-based approaches to cognitive neuroscience (pp. 79-84). Cambridge, MA: MIT Press.
March 2: NO CLASS (Spring Break)		
March 9: MEMORY AND AMNESIA Class 6	*Lecture Topic:* Overview of memory, Amnesia Episodic and semantic memory disorders	*Readings:* Online: • Kolb & Whishaw: Chapter 18: Memory • Kuhn & Bauer, 2012 *Optional Reading:* • Sacks, O. (2007). The abyss: Music and amnesia. *The New Yorker, September 24,* 100-111. • Farah, M.J. & Grossman, M. (2000). Semantic memory impairments. In M. J. Farah & T. E. Feinberg (Eds.), *Patient-based approaches to cognitive neuroscience* (pp. 301-305). Cambridge,

		MA: The MIT Press.
March 16: FRONTAL LOBE AND EXECUTIVE FUNCTIONS Class 7	*Lecture Topics:* Functional Anatomy of Frontal Lobes Executive function and dysfunction Motor Planning and Intention Personality and Mood Regulation Working Memory	*Readings:* Zillmer, Spiers & Culbertson: • Chapter 9: pp. 246-259 Sakai: Kolb & Whishaw: • Chapter 16: The Frontal Lobes • Chapter 26: Neurological Disorders – TBI section (pp. 702-706) *Optional Reading:* • Damasio, H., Grabowski, T., Frank, R., Galaburda, A. M., & Damasio, A. R. (1994). The return of Phineas Gage: Clues about the brain from the skull of a famous patient. *Science, 264,* 1102-1105.
March 23: Exam 2 (Classes 4-7) – 2 HOURS		
March 23: TRAUMATIC BRAIN INJURY Class 8	*Lecture Topics:* Overview of traumatic brain injury Functional outcome in head injury Assessment and management of head injury and concussion Rehabilitation	*Readings:* Zillmer, Spiers & Culbertson: • Chapter 13: Traumatic Head Injury and Rehabilitation (pp. 369-389) *Optional Reading*: T.B.D
Classes 9-11: Clinical lifespan and professional issues		
March 30: PEDIATRIC NEUROPSYCHOLOGY Class 9	*Lecture Topics:* Epilepsy Developmental/Autism Spectrum Disorders Pediatric Neuropsychology Pediatric Neuropsychological Disorders: Pre- and perinatal brain damage Genetic/congenital disorders Learning disabilities Pervasive Developmental Disorders	*Readings*: Zillmer, Spiers & Culbertson: • Chapter 10: Developmental Disorders of Childhood • Chapter 11: Learning and Neuropsychiatric Disorders of Childhood *Optional Reading*: • Barkley, R. A. (1998). Attention-Deficit Hyperactivity Disorder. Scientific American, September issue, 66-71.

	Attention Deficit Hyperactivity Disorder	
April 6: AGING AND DEMENTIA Class 10 **PAPERS DUE BY 5pm**	*Lecture Topics:* Normal Aging Pathological Aging and Dementia *Key disorders:* Mild Cognitive Impairment (MCI) Degenerative dementia (e.g., Alzheimer's disease, Frontotemporal dementia) Vascular dementia/vascular disease/white matter disease	*Readings*: Zillmer, Spiers, & Culbertson: • Chapter 12: Cerebrovascular Disorders (pp. 339-347; 351-357) • Chapter 14: Normal Aging and Dementia: Alzheimer's Disease • Chapter 15: Subcortical Dementias *Optional Readings*: • Reuter-Lorenz, P.A. (2002). New visions of the aging mind and brain. Trends in Cognitive Sciences, 6(9), 394-400. • Park, D. C. and P. Reuter-Lorenz (2009). "The adaptive brain: aging and neurocognitive scaffolding." Ann Rev Psychol 60: 173-96 • DeKosky, S.T., & Marek, K. (2003). Looking backward to move forward: early detection of neurodegenerative disorders. Science, 302(5646), 830-834.
April 13: PROFESSIONAL ISSUES AND APPLICATIONS Class 11	*Lecture Topics:* Ethical guidelines and considerations Multicultural issues in Neuropsychology Forensic Neuropsychology Training in Neuropsychology Careers in Neuropsychology	*Readings*: Online/Sakai: • Craig, P. (2007). Clinical Neuropsychology: Brain-Behavior Relationships. In R. J. Sternberg (Ed.), Career Paths in Psychology: Where Your Degree Can Take You (pp. 161-178). Washington, DC: American Psychological Association. • APA Ethical guidelines
APRIL 20: FINAL EXAM (67% from Class 8-11; 33% cumulative)		

Online Course Evaluation Process

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations 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/results/.

Statement of University's Honesty Policy (cheating and use of copyrighted materials)

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/ that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.

Statement Related to Accommodations for Students with Disabilities

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester

Counseling and Student Health

Students may occasionally have personal issues that arise in 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, http://www.counseling.ufl.edu/cwc/Default.aspx, 352-392-1575.

Crisis intervention is always available 24/7 from the Alachua County Crisis Center: (352) 264-6789.

BUT – Do not wait until you reach a crisis to come in. I have helped many students through stressful situations impacting their academic performance. You are not alone, so don't be afraid to ask for help.

How to access course materials

You can access course materials (including the syllabus, readings other than those from the textbook and optional readings) on the University's E-learning system (Sakai) at http://lss.at.ufl.edu/
Please let me know if you have any difficulty accessing these materials.