Syllabus

Neuropsychology

PSYC 545
Spring 2015, Tue-Thu, 8:00-9:50 AM

Location: VDP 107
Course Instructor/ Director: Antoine Bechara
HNB B26
Office Hours: Tue-Thu 10:00-11:00 AM
Also by appointment
Contact Info: bechara@usc.edu

Teaching Assistant: Alex Hollihan
Office: HNB B26
Office Hours: By appointment
Contact Info: alexhollihan@gmail.com

IT Help: NA
Hours of Service: NA
Contact Info: NA

Course Description: This is a graduate level course that covers brain mechanisms underlying perceptual and cognitive functioning: brain damage, loss of function, and clinical assessment. It consists of three major sections: Overview of Neuroanatomy, Neurological Illnesses, and Neuropsychological Syndromes associated with damage in different lobes of the brain. These sections are delivered in the form of lectures, and clinical cases on patients with neurological lesions or diseases. The course material is interrelated throughout these forms of teaching, giving students multiple ways of learning the material.

Learning Objectives: The objectives of the course are: (1) to introduce basic concepts about the organization, structure, and function of the human central nervous system; (2) to enable students to apply these fundamental principles toward understanding nervous system function and dysfunction and toward clinical problem-solving in relation to neurological and neuropsychological disorders; (3) to provide the necessary background for correlation with related courses, for advanced study of the nervous system, and for monitoring new developments in the basic and clinical neuro and psychological sciences.

Prerequisite(s): No pre-requisites for graduate level students.
Undergraduates in senior year are allowed to enroll (no specific pre-requisites), but instructor permission is required.

Co-Requisite (s): none
Concurrent Enrollment: none
Recommended Preparation: Physiological or Clinical Psychology, Neuroscience.
Course Notes: Course Syllabus, Lecture Materials, and Clinical Cases will be posted on the web (Black Board) as the course progresses.

Attendance and Student Responsibilities: Students are held responsible for all material covered in class. Students are also responsible for all announcements or schedule changes that are made in class, whether or not they are in attendance. Attendance at examination is mandatory, except for illness in which case written documentation from a physician is required. For serious matters that are non-medical in nature, students must receive permission in advance from the Instructor to be excused from attending an examination at the scheduled time.

Technological Proficiency and Hardware/Software Required: NA

Required Readings and Supplementary Materials: The textbook recommended for this course is Walsh’s NEUROPSYCHOLOGY, A Clinical Approach, Fifth Edition, David Darby and Kevin Walsh, Elsevier, 2005. Course Syllabus, Lecture Materials, and Clinical Cases will be posted on the web (Black Board) as the course progresses.


Description and Assessment of Assignments: NA

Grading Breakdown: There will be 3 midterm exams covering lectures and practical/clinical cases, and a final examination. Final grades will be calculated as follows:

- **Midterm 1** (multiple choice plus short answers) 20%
- **Midterm 2** (multiple choice plus short answers) 25%
- **Midterm 3** (multiple choice plus short answers) 25%
- **Final Exam** (multiple choice plus short answers) 30%

Final Grade 100%

Assignment Submission Policy: NA

Additional Policies: NA
## Course Schedule: A Weekly Breakdown

### Overview of Neuroanatomy

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics/Daily Activities</th>
<th>Readings and Homework</th>
<th>Deliverable/ Due Dates</th>
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<tbody>
<tr>
<td><strong>Week 1</strong>&lt;br&gt;Dates: Jan 13-15</td>
<td>Course Introduction. History of Neuropsychology.</td>
<td>Read Chapter 1 and posted lecture slides. Supplement: chapters 1,3,8,9,10 of Kolb and Wishaw.</td>
<td>Participate in class questions and discussions/Jan 13-15</td>
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<tr>
<td><strong>Week 2</strong>&lt;br&gt;Dates: Jan 20-22</td>
<td>Basic brain anatomy: -Coverings, CSF, gross morphology.</td>
<td>Read Chapter 2 and posted lecture slides. Supplement: chapters 1,3,8,9,10 of Kolb and Wishaw.</td>
<td>Participate in class questions and discussions/Jan 20-22</td>
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<td><strong>Week 3</strong>&lt;br&gt;Dates: Jan 27-29</td>
<td>-Cerebral cortex, brainstem, internal structures. -Blood supply.</td>
<td>Read Chapter 2 and posted lecture slides. Supplement: chapters 1,3,8,9,10 of Kolb and Wishaw.</td>
<td>Participate in class questions and discussions/Jan 27-29</td>
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### Neurological Illnesses

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<tr>
<th>Week</th>
<th>Topics/Daily Activities</th>
<th>Readings and Homework</th>
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<tr>
<td><strong>Week 4</strong>&lt;br&gt;Dates: Feb 3-5</td>
<td>Elements of neurology: -Neurological exam -Common neurological disorders:</td>
<td>Read Chapter 3 and posted lecture slides. Supplement: chapters 8,9,26, 27 of Kolb and Wishaw.</td>
<td>Participate in class questions and discussions/Feb 3-5</td>
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<td><strong>Week 5</strong>&lt;br&gt;Dates: Feb 10-12</td>
<td>Trauma, tumors, cerebro-vascular, degenerative disorders.</td>
<td>Read Chapter 3 and posted lecture slides. Supplement: chapters 8,9,26, 27 of Kolb and Wishaw.</td>
<td>Participate in class questions and discussions/Feb 10-12</td>
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<tr>
<td><strong>Week 6</strong>&lt;br&gt;Dates: Feb 17-19</td>
<td><strong>Feb 17: Term Test 1</strong>&lt;br&gt;Feb 19: Higher cerebral functions: aphasia</td>
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<td><strong>Feb 17 is term test 1</strong></td>
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<td>Week 8</td>
<td>Dates: March 3-5</td>
<td>The Frontal Lobes: I &amp; II -Anatomy, function, syndrome, lesions, psychosurgery, personality.</td>
<td>Read Chapter 4 and posted lecture slides. Supplement: chapters 16, 20 of Kolb and Wishaw.</td>
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<tr>
<td>Week 9</td>
<td>Dates: March 10-12</td>
<td>Temporal Lobes: I &amp; II -Anatomy, function, special sensory and perception, complex partial seizures, lesions.</td>
<td>Read Chapter 5 and posted lecture slides. Supplement: chapter 18, 20 of Kolb and Wishaw.</td>
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<td>Spring Break</td>
<td>March 16-20</td>
<td>No Classes</td>
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<td>Week 10</td>
<td>Dates: March 24-26</td>
<td>March 24: Term Test 2 March 26: The parietal lobes: I -Sensory and perceptual disturbances, spatial orientation disorders.</td>
<td>Read Chapter 6 and posted lecture slides. Supplement: chapter 13, 14, 19, 22 of Kolb and Wishaw.</td>
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<td>Week 12</td>
<td>Dates: April 6-9</td>
<td>April 6: The occipital lobes: II -Cerebral blindness, denial of blindness, visual perception, agnosia, alexia, agraphia. April 9: Term Test 3</td>
<td>Read Chapter 7 and posted lecture slides. Supplement: chapter 13, 14, 19, 22 of Kolb and Wishaw.</td>
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<td>Week 13</td>
<td>Dates: April 14-16</td>
<td>Hemispheric Asymmetry I and II -Cerebral dominance, unilateral lesion studies, hemispherectomy, commissurotomy, agenesis of corpus callosum.</td>
<td>Read Chapter 8 and posted lecture slides. Supplement: chapter 11, 12, 17 of Kolb and Wishaw.</td>
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Statement on Academic Conduct and Support Systems

Academic Conduct
Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Section 11, Behavior Violating University Standards. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the Office of Equity and Diversity or to the Department of Public Safety. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmates, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. The Center for Women and Men provides 24/7 confidential support, and the sexual assault resource center webpage describes reporting options and other resources.

Support Systems
A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the American Language Institute, which sponsors courses and workshops specifically for international graduate students. The Office of Disability Services and Programs provides certification for students with disabilities and helps arrange the relevant

| Week 14 | The interbrain:  
- Functional Disorders  
- Amnestic syndromes and dementias. | Read Chapter 9 and posted lecture slides.  
Supplement: chapter 27 of Kolb and Wishaw. | Participate in class questions and discussions/April 21-23. |
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| Week 15 | - Neuropsychological Assessment.  
- Brain and behavior | Read Chapter 10 and 11 and posted lecture slides. | Participate in class questions and discussions/April 28-30. |
| FINAL | Date: For the date and time of the final for this class, consult the USC Schedule of Classes at www.usc.edu/soc. | Date: For the date and time of the final for this class, consult the USC Schedule of Classes at www.usc.edu/soc. | Date: For the date and time of the final for this class, consult the USC Schedule of Classes at www.usc.edu/soc. |
accommodations. If an officially declared emergency makes travel to campus infeasible, USC Emergency Information http://emergency.usc.edu will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.