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Course Description

This course is an advanced seminar with the goal of introducing students to the theory and practice of Clinical Neuropsychology. This specialized subfield of Clinical Psychology aims to assess and interpret the relationship between nervous system function, cognition, emotion and behavior; and to apply this knowledge to the design of individualized patient interventions. Students will gain an understanding of the field through review of adult and pediatric cognitive and neurological disorders. The psychosocial adjustment of patients living with each disorder and the dynamics among individuals involved in their care are additional themes of emphasis. The course takes an interdisciplinary approach integrating information from several subfields of medicine (neurology, neuroradiology and psychiatry) and psychology (cognitive, abnormal, developmental, biological, health psychology). Students will acquire knowledge through review of both clinical cases and research outcomes. An introductory background in neuroscience is required.

Organizational Approach

The course is “case-based” in that students will review presenting symptoms, etiology/neuropathology and neuropsychological profiles for specific disorders/diseases. An overview of neuroanatomy, neurophysiology and neurodevelopment will be provided within the context of each disease/disorder. Scientific approaches to brain/behavior investigation including animal and human research methodologies will also be reviewed. The process of Neuropsychological Assessment will be taught through a “hands-on” approach in which students will develop skills through direct practice with classmates. Ethical considerations in the field will be integrated throughout the course.

Course Requirements

Attendance

Consistent attendance is extremely important. One unexcused absence is allowed during the semester. Please email me before the missed class. If you anticipate missing several classes, you must carefully consider the consequences. Unfortunately, due to the content, pace and format of the course, it will be impossible to fully grasp material following a missed class.
**Class Participation**

This class will be taught in seminar format. Student participation is a key factor in nurturing an enriching learning environment. It is expected that all students will contribute to each week’s discussion. You will be evaluated on the quality of your contributions. Evaluations of class participation will be based on the following:

- Has the student demonstrated knowledge of the reading assignments?
- Has the student provided new insight which builds on information in the readings?
- Is the student a good listener, addressing and integrating comments from classmates?
- Are the student’s comments relevant, on track and non-tangential?

**Reading Assignments and Case Presentation**

Students are expected to read all assigned readings prior to class. Each student should come to class prepared to discuss the readings. In each class session, two or more students will present a clinical case, applying knowledge in nervous system dysfunction, relevant functional domains (e.g. attention, memory, visuospatial abilities) and current empirically based interventions. The presenters will read all assigned readings as well as additional articles which will add more depth to the discussion.

**Examinations**

Each student will be required to complete a take home midterm and final examination. The final examination is not cumulative. Both exams will be distributed two weeks before the due date. Material will be included from both lecture and assigned readings.

**Written Assignments**

*Additional detail will be provided for each assignment in class*

**Neuropsychological Assessment Report**-Students will have the opportunity to conduct a “mini” neuropsychological evaluation of a practice subject. This evaluation will consist of an interview and administration of parts of neuropsychological tests. The test subject will be a classmate who may choose to feign symptoms of a disorder assigned by the instructor or chosen by the student. In addition, students will acquire skill in scoring and writing a complete Neuropsychological Assessment report including: Background, Behavioral Observations, Test Results, Impressions and Recommendations sections.

**Final Paper: Two Options:** 1. Review of Empirical Knowledge-Students will choose a disorder/disease and focus on one aspect of the disease-etioloay and symptomatology, assessment or treatment. Students will review the scientific literature which informs our current knowledge of the chosen subject area. For example, if a student chooses Alzheimer’s disease, he/she may review empirical studies contrasting effective treatments or review studies contributing to knowledge of the neuropathology of Alzheimer’s. 2. Review of a Cognitive Domain-The goal of this assignment is to review a particular neurocognitive domain in depth. Students are required to choose a domain of particular interest (e.g. memory, attention, executive function, visuospatial) and summarize current thinking on the theoretical definition of the domain and underlying neural substrates. Current research journal articles must be included as part of this review.

**Final Grades**
Your final average will be calculated as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Examination</td>
<td>20%</td>
<td>June 12th</td>
</tr>
<tr>
<td>Neuropsychological Evaluation/Report</td>
<td>20%</td>
<td>June 26th</td>
</tr>
<tr>
<td>Final Examination</td>
<td>30%</td>
<td>July 2nd</td>
</tr>
<tr>
<td>Final Paper</td>
<td>20%</td>
<td>July 2nd</td>
</tr>
<tr>
<td>Case Presentation</td>
<td>10%</td>
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**Course Readings**

**The required texts for the course are:**


**Additional readings will be provided from the following texts:**


**DISCUSSION TOPICS AND READING ASSIGNMENTS**
Tuesday, May 22: Introduction to the Field of Clinical Neuropsychology

Discussion Topic: Role Definitions: The Clinical Psychologist and Clinical Neuropsychologist

Reading Assignment

Texts:

Ogden: Chapter 1: Introduction to Clinical Neuropsychology
Zillmer: Chapter 1: A History of Neuropsychology

Thursday, May 24: Cognitive Domains-Definitions and Assessment

Reading Assignment

Texts:

Ogden: Chapter 2: The Neuropsychological Assessment
Zillmer: Chapter 3: Neuropsychological Assessment and Diagnosis

Tuesday, May 29: Neuroassessment Theory and Procedures

Reading Assignment

Courseworks:

Lezak: Chapter 5: The Neuropsychological Examination: Procedures
Chapter 6: The Neuropsychological Examination: Interpretation
Strauss: Chapter 3: History Taking
Strauss: Chapter 4: Test Selection, Test Administration, and Preparation of the Patient

Disorders with Emphasis on Deficits in Specific Cognitive Domains

Thursday, May 31: Memory: The Amnesias, Alzheimer’s Disease and Other Dementias

Reading Assignment

Texts:

Ogden: Case 3: Marooned in the Moment: H.M., a Case of Global Amnesia
Ogden: Case 17: Dementia: A Family Tragedy
Zillmer: Chapter 9: Pages 225-240 (Memory Systems)
Zillmer: Chapter 14: Normal Aging and Dementia: Alzheimer’s Disease

Courseworks:
Tuesday, June 5th: Language: Aphasia

Reading Assignment

Texts:

Ogden: Case 5: The Breakdown of Language: Case Studies of Aphasia
Zillmer: Chapter 8: Pages 215-221 (Auditory and Language Processing)

*MIDTERM DISTRIBUTED*

Thursday, June 7th: Attention and Executive Function: Attention Deficit Hyperactivity Disorder

Reading Assignment

Texts:

Zillmer: Chapter 9: pages 240-258
       Chapter 11: Pages 322-332 (Disruptive Behavioral Disorders-ADHD)

Courseworks:

Anderson: Chapter 11, Case 7: Attention Deficit Hyperactivity Disorder
Morgan: Chapter 16: Neuropsychological Perspectives on ADHD
       Chapter 35: Adult Attention Deficit Hyperactivity Disorder: Basic and Clinical Issues

Tuesday, June 12th: Executive Function: Frontal Lobe Disorders

Texts:

Ogden: Case 9: The Impaired Executive: A Case of Frontal-Lobe Dysfunction

Courseworks:

Additional Readings TBA

*MIDTERM SUBMITTED*

Thursday, June 14th: In-Class Neuropsychological Assessment Administration

Multiple Domains: Psychiatric and Neurological Disorders
Tuesday, June 19th: Motor Disorders: Parkinson’s Disease

Reading Assignment

Texts:

Ogden: Case 15: Mind Over Matter: Coping with Parkinson’s Disease
Zillmer: Chapter 7: Motor Systems (Pages 189-197)
Chapter 15: Subcortical Dementias

Courseworks:

Grant: Chapter 9: The Neuropsychological Aspects of Parkinson’s disease and Parkinsonism

Thursday, June 21st: Cerebrovascular Disorders

Reading Assignment

Texts:

Ogden: Case 12: Explosions in the Mind: A Case of Subarachnoid Hemorrhage
Zillmer: Chapter 12: Cerebrovascular Disorders and Tumors (Pages 340-356)

*FINAL EXAMINATION DISTRIBUTED*

Tuesday, June 26th: Head Trauma and Traumatic Brain Injury

Reading Assignment

Texts:

Ogden: Case 10: Beating the Odds, Severe Head Injury and the Importance of Ongoing Rehabilitation
Case 11: The Unseen Injury, Minor Closed Head Injury
Zillmer: Chapter 13: Traumatic Head Injury and Rehabilitation

Courseworks:

Morgan: Chapter 21: Moderate and Severe Traumatic Brain Injury
Chapter 22: Mild Traumatic Brain Injury and Post Concussion Syndrome

*NEUROASSESSMENT REPORT SUBMITTED*

Thursday, June 28th: Psychiatric Disorders: Major Depressive Disorder and Schizophrenia
Courseworks:


Additional Readings TBA

Monday, July 2nd: Final Paper and Final Examination Submitted

Extra Help

I am available for individual meetings by appointment. Please do not hesitate to ask for tutoring, additional study materials, and/or general support throughout the semester. My goal is to make sure that each of you performs at your maximum potential and that your efforts are rewarded. You will also find tremendous benefit in working with your TA, Eddie. He has taken the course (and aced it!) and is very knowledgeable in the field. He is also very sensitive to student needs. Feel free to contact either or both of us over the course of the semester.

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“A community of critical friends who can support, critique, challenge and hold each others’ thinking to the highest standards of rigor and creativity”

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WELCOME TO THE CLINICAL NEUROPSYCHOLGY!