CIEP 484: Biological Foundations of Behavior

Loyola University Chicago
Summer Session II 2014
ONLINE COURSE
June 30, 2014 through August 8, 2014

Instructor Contact Information:
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laurenmcardle85@gmail.com
773.339.3944

Required Textbooks:

Recommended Texts:


Supplementary Texts (selected readings posted to Sakai):


The Mission of the Loyola University Chicago, School of Education

The School of Education at Loyola University Chicago, a Jesuit and Catholic urban university, supports the Jesuit ideal of knowledge in the service of humanity. We endeavor to advance professional education in the service of social justice, engaged with Chicago, the nation, and the world. To achieve this vision the School of Education participates in the discovery, development, demonstration, and dissemination of professional knowledge and practice within a context of ethics, service to others, and social justice. We fulfill this mission by preparing professionals to serve as teachers, administrators, psychologists, and researchers; by conducting research on issues of professional practice and social justice; and by partnering with schools and community agencies to enhance life-long learning in the Chicago area.
Course Description

Students will learn basic biological foundations of behavior as they relate to the assessment of and intervention with students in school settings. Additionally, students will demonstrate an understanding of the biological bases of behavior and how these issues are linked to academic and behavioral challenges faced by students through various classroom activities. Evidence-based interventions for several behaviors will be discussed.

Academic Honesty

Academic honesty is an expression of interpersonal justice, responsibility and care, applicable to Loyola University faculty, students, and staff, which demands that the pursuit of knowledge in the university community be carried out with sincerity and integrity. The School of Education’s Policy on Academic Integrity can be found at: http://www.luc.edu/education/academics_policies_integrity.shtml. For additional academic policies and procedures refer to: http://www.luc.edu/education/academics_policies_main.shtml.

Accessibility

Students who have disabilities which they believe entitle them to accommodations under the Americans with Disabilities Act should register with the Services for Students with Disabilities (SSWD) office. To request accommodations, students must schedule an appointment with an SSWD coordinator. Students should contact SSWD at least four weeks before their first semester or term at Loyola. Returning students should schedule an appointment within the first two weeks of the semester or term. The University policy on accommodations and participation in courses is available at: http://www.luc.edu/sswd/.

Candidates with Special Needs: If you are a candidate who requires additional academic supports, please let me know on the first day of class.

Harassment (Bias Reporting)

It is unacceptable and a violation of university policy to harass, discriminate against or abuse any person because of his or her race, color, national origin, gender, sexual orientation, disability, religion, age or any other characteristic protected by applicable law. Such behavior threatens to destroy the environment of tolerance and mutual respect that must prevail for this university to fulfill its educational and health care mission. For this reason, every incident of harassment, discrimination or abuse undermines the aspirations and attacks the ideals of our community. The university qualifies these incidents as incidents of bias.

In order to uphold our mission of being Chicago's Jesuit Catholic University-- a diverse community seeking God in all things and working to expand knowledge in the service of humanity through learning, justice and faith, any incident(s) of bias must be reported and appropriately addressed. Therefore, the Bias Response (BR) Team was created to assist members of the Loyola University Chicago community in bringing incidents of bias to the attention of the university. If you believe you are subject to such bias, you should notify the Bias Response Team at this link: http://webapps.luc.edu/biasreporting/.

Conceptual Framework

The Conceptual Framework for the Loyola University Chicago, School of Education is Professionalism in Service of Social Justice. Specifically, this course will address how assessment and intervention practices within school settings can fit within the SOE conceptual framework, and how school psychologists might work to develop more ethically sound practices in the areas of assessment and intervention – ensuring that ALL students have their social, emotional, academic, and behavioral needs met within the school setting. Discussion of the mission of the school of education and the framework can be found online at: http://www.luc.edu/education/mission/
Diversity

Diversity of student learners will be emphasized through course content, as biological differences in learners is a strong component of CIEP 484: Biological Bases of Behavior. Graduate students will receive an overview of how students with varying needs learn and process information differently – and will also receive an overview of interventions designed to meet specific student needs. An appreciation for differentiated instruction and individualized intervention for diverse learners is also an emphasis of the course.

Technology

Students will do research on the computer related to assessment procedures, participate in online activities and access course materials on Sakai (formerly Blackboard).

Professional Expectations of the Instructor (Dispositions)

- Participation and completion of all module readings, activities, and assessments are critical to student learning for this course. In order to be successful in CIEP 484 – all activities within a given lesson plan are to be completed.
- In the event that further clarification regarding a lesson plan, reading, assessment, or any other assigned task associated with the course is needed – it is the expectation that students contact the instructor with ample time prior to weekly deadlines (Thursdays, 7PM) in order to allow adequate time for a) the instructor to respond and b) for the student to adequately complete all activities and assessments associated with individual lesson plans.
- The core disposition of “Professionalism” will be evaluated by review of communications between students and the instructor, as well as through review of timeliness with regard to assignment deadlines. The core disposition of “Belief that ALL students can learn” will be evaluated through a review of forum discussions and assignment submissions; should the instructor feel that students are posting/completing assignments in a manner that indicates bias toward a certain learner group (i.e., students with autism, students with behavioral issues), the student will be addressed privately/individually by the instructor.

Course Objectives

This is a seminar course on cognitive neuropsychological foundations in school psychology. The cognitive neuropsychological basis of educational theories and practices are studied and critically examined. Emphasis is placed on current brain research, and an assessment model is presented that is based on the Cognitive Hypothesis Testing model (Hale & Fiorello, 2004). A discussion of how neuropsychological processes and medications impact learning, social interactions, and behavioral functioning within the school setting. The course is for nonmedical professionals and provides a basic knowledge of cognitive neuropsychological principles of brain functioning, neuropsychological assessment, evidence-based intervention, and basic psychopharmacological knowledge. At the conclusion of the course students will understand:

1. How brain functioning can impact student learning (NASP Standards 1 & 11)
2. How to translate current brain research into educational practice (NASP Standards 1, 7, & 11).
3. How to integrate a knowledge of biological foundations into developing interventions in the educational setting (NASP Standards 1, 3, 7, & 8)
4. Importance of collaboration with teachers, parents, and other professionals (NASP Standards 5 & 10)
IDEA Evaluation Course Objectives

In addition to traditional course objectives (listed above), the following four objectives will be considered to be of critical importance when evaluating the course; IDEA objectives for evaluation are as follows:

1. Gaining factual knowledge (terminology, classifications, methods, trends, etc.)
2. Learning fundamental principles, generalizations, or theories
3. Learning to apply course material (to improve thinking, problem solving, and decisions)
4. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course

Evaluation Procedures

Grades will be based on the following assessment procedures:

<table>
<thead>
<tr>
<th>Evaluation Type</th>
<th>Points</th>
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<tbody>
<tr>
<td>Weekly Participation Points (5 pts. per lesson)</td>
<td>60 points</td>
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<tr>
<td>Weekly Assessment Points (5 pts. per lesson)</td>
<td>60 points</td>
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<tr>
<td>Final Assessment Points (5 pts. per lesson)</td>
<td>80 points</td>
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<td><strong>TOTAL</strong></td>
<td><strong>200 points</strong></td>
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Percent  | Points  | Grade
---------|---------|------
93-100   | 186-200 | A    
90-92    | 180-185 | A-   
87-89    | 174-179 | B+   
83-86    | 166-173 | B    
80-82    | 160-165 | B-   
77-79    | 154-159 | C+   
73-76    | 146-153 | C    
70-72    | 140-145 | C-   
60-69    | 120-139 | D    
<59      | <119    | F    

**Course Organization NOTE:** There will be 2 Lesson Plans posted per week, to be completed at a time determined by each individual student; however, weekly lesson plan activities (including participation activities and assessments, discussed below) need to be completed by **7PM on Thursday of the assigned week** – with the exception of the final review activity (due WEDNESDAY 7/6/2014). The reader is referred below (Course Agenda) for individual lesson plan due dates.

**Weekly Participation Points (60 points):** Students can potentially earn 5 participation points per lesson, for a total of 60 points for the term (12 total lessons, including the final exam; students will automatically earn the participation points for the day upon completion of the final exam). Participation points will be outlined clearly within lesson plan presentations – as well as within the syllabus (see Course Agenda, below). Examples of potential participation activities include contributions to discussion forums and completion of notes pages.

**Weekly Assessment Points (60 points):** Students can potentially earn 5 assessment points per lesson, for a total of 60 points for the term (12 total lessons, including the final exam; students will automatically earn the assessment points for the day upon completion of the final exam). Assessment activities will be outlined clearly within lesson plans – as well as within the syllabus (see Course Agenda, below). Examples of potential assessment activities include quizzes and case study analyses.

**FINAL (80 points):** At the end of the semester, students will complete an objective final assessment, which will integrate concepts learned across the course of the summer term. Students will be asked to use their knowledge of assessment and intervention to answer questions regarding biological terms related to learning/behavior processes, assessment procedures/instruments, and intervention design.
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<thead>
<tr>
<th>Week/Lesson</th>
<th>Topic(s)</th>
<th>Readings</th>
<th>Participation &amp; Assessment Activities</th>
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<tbody>
<tr>
<td><strong>Week 1 – Lesson 1</strong></td>
<td>Course Overview</td>
<td>Miller, Ch. 1 (review)</td>
<td>Participation: “Getting to Know You” Discussion Forum</td>
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<td>Intros to School Neuropsychology</td>
<td>Miller, Ch. 2 (review)</td>
<td>Assessment: Task Analysis Assignment</td>
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<td>CHT Model</td>
<td>Miller, Ch. 5 (review)</td>
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<td>Brain Development</td>
<td>Hale &amp; Fiorello, Ch. 2, pp. 43-51</td>
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<td>Basic Brain Anatomy</td>
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<td><strong>Week 1 – Lesson 2</strong></td>
<td>Brain Organization</td>
<td>Hale &amp; Fiorello, Ch. 2, pp. 51-77</td>
<td>Participation: Brain Organization Chart completed</td>
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<td>School Neuropsychological Assessment Model</td>
<td>Miller, Ch. 5</td>
<td>Assessment: Sensory-Motor Task Analysis Questions</td>
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<td>Sensory-Motor Functions</td>
<td>Miller, Ch. 10</td>
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<td><strong>Week 2 – Lesson 1</strong></td>
<td>Attention</td>
<td>Miller, Ch. 14</td>
<td>Participation: Attention Assessment Discussion Q’s</td>
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<td>• Biological Bases</td>
<td>Best Practices in School Neuropsychology (Ed. Miller), Ch. 11</td>
<td>Assessment: Attention QUIZ</td>
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<td><strong>Week 2 – Lesson 2</strong></td>
<td>Visual-Spatial Processing</td>
<td>Miller, Ch. 11</td>
<td>Participation: VSP Task Analysis</td>
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<td>• Biological Bases</td>
<td>Miller, Ch. 16 (review)</td>
<td>Assessment: VSP/Language QUIZ</td>
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<td><strong>Week 3 – Lesson 1</strong></td>
<td>Learning &amp; Memory</td>
<td>Miller, Ch. 12</td>
<td>Participation: Case Analysis</td>
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<td></td>
<td>• Biological Bases</td>
<td>Best Practices in School Neuropsychology (Ed. Miller), Ch. 25</td>
<td>Assessment: Learning and Memory QUIZ</td>
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<td>• Intervention</td>
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| Week 3 – Lesson 2 | Executive Functioning  
• Biological Bases  
• Assessment  
• Intervention | Miller, Ch. 13  
Best Practices in School Neuropsychology (Ed. Miller), Ch. 24 | Participation: Case Analysis  
Assessment: Learning and Memory QUIZ  
Due by 7PM on 7/17/2014 |
|------------------|--------------------------------------------------|-------------------------------------------------|--------------------------------------------------|
| Week 4 – Lesson 1 | Traumatic Brain Injury (TBI), Seizure Disorders, Autism  
• Biological Bases  
• Assessment  
• Intervention | Readings posted to Sakai | Participation: Case Questions re: 7 Factors of Autism  
Assessment: TBI QUIZ  
Due by 7PM on 7/24/2014 |
| Week 4 – Lesson 2 | Specific Learning Disabilities  
• Biological Bases  
• Assessment  
• Intervention | Feifer, Chs. 3-6 | Participation: Intervention Review  
Assessment: Case Analysis  
Due by 7PM on 7/24/2014 |
| Week 5 – Lesson 1 | Depression, Anxiety, OCD, Bipolar Disorder  
• Biological Bases  
• Assessment  
• Intervention | Readings posted to Sakai | Participation: Mood Disorder Discussion Forum  
Assessment: Video Case Analysis Questions  
Due by 7PM on 7/31/2014 |
| Week 5 – Lesson 2 | Psychopharmacology  
Case Study Analyses  
Report Writing | Readings posted in Sakai | Participation: Psychopharmacology Discussion Forum  
Assessment: Report Organization  
Due by 7PM on 7/31/2014 |
| Week 6 – Lesson 1 | Online Final Review Activity | NONE | Students will receive all 10 points upon completion of review activity (due by 7PM on WEDNESDAY 7/6/2014) |
| Week 6 – FINAL | FINAL EXAM | Final Review Activity answers posted to Sakai | Students will receive all 10 points upon completion of the final (due by 7PM on THURSDAY 7/7/2014) |