Course Syllabus
EDHD692: Cognitive (& Neural) Bases of Instruction

Fall 2018 Tues 4:30-7:15pm Shady Grove Bldg III Rm 4216
Instructor: Dr. Donald J. Bolger Office: 3304N Benjamin Building
Phone: 301-405-9103 Email: djbolger@umd.edu
Hours: Mondays 4-5pm by appt.

Texts: Selected readings will be placed on Blackboard (elms.umd.edu) or on Dropbox

Course Description and Objectives:
This course is an introductory survey into contemporary theory and research in cognitive development, including the neural basis of cognitive development and applications to classroom learning. This course will focus on typical areas of cognitive development including language (spoken and written), conceptual change, numerical/quantitative processing, and social cognition as well as burgeoning areas of developmental research in general cognitive processes such as attention, memory, and visual-spatial processing. These topics will be discussed with respect to typical and atypical development with some focus on developmental disabilities including autism, specific language impairment, reading and math impairment, and attention deficit disorders among others. This course will focus on theoretical distinctions and delve into the biological aspects of brain development.

Course Goals:
By the end of this course, students should be able to:
• Understand theoretical perspectives in cognitive development, including their strengths and weaknesses.
• Recognize the importance of the interaction between children and their environment, and how cognitive skills and abilities change with age and experience.
• Develop the ability to critically evaluate scientific research and interpret research findings.
• Explore implications for applied issues relating to education and public policy.

Evaluation & Course Grading:
1. Preparation each class (10%)
   Students will be required to foster a critical and creative dialogue in class on the topic matter that will be discussed each day. Students will also be asked to come prepared with questions, commentary, and evaluations on the assigned readings (in addition to the artifact presentations). These questions should be poignant and directed at fostering critiques and discussion of how these topic connect with your practice as educators.

   You cannot make-up participation for a missed class unless you provide a University-documented excuse or are exempted for religious reasons following the guidelines of the University. However you can miss up to two sessions (e.g., Back to School Night) without penalty.

2. Artifact Presentation (30%)
   To demonstrate your ongoing efforts to bridge theory and practice, you will be required to present an artifact that connects to, critiques, or applies that week’s reading. Over the course of the term you must present 5 artifacts. These artifacts can be from your own practice (e.g., a survey you give to students, a modified lesson or assessment from your curriculum, documentation of a professional development initiative, MCPS indicators) and/or from the larger field of education (e.g., an Op Ed article, Core Content standards). The artifacts can be premade (e.g., a lesson from your curriculum guide) or self-generated (e.g., a written description of an interaction you had with a student).

   You are tasked with distributing copies of the artifact (i.e. deposit it into dropbox folder), briefly presenting the artifact, and then leading a discussion around it. Additionally, in a brief (1.5-2 page) reflection piece, you must describe and justify the artifact’s relation to a specific topic in the assigned reading. In other words, how does the
artifact connect with/illustrate the topic, provide a counter-example/critique of the topic, or apply the topic (i.e., shows how you have used it in your own practice)?

Artifact presentation and discussion for each week will be graded out of five possible points. The point distribution for each session is as follows:

1 point—Bringing to class a relevant artifact (entered via dropbox, no need for hard copy)
2 points—Justifying the artifact’s relevance, both in the journal entry and in discussion
2 points—Facilitating a discussion around the article and its relation to the reading

You cannot make-up artifact presentation for a missed class unless you provide a University-documented excuse or are exempted for religious reasons following the guidelines of the University.

3. **Final Take-Home Exams (30%)**

There will be an essay final that will be given during finals week. Students will have 1 week to complete the exam from the time it is administered.

4. **Writing Assignment & Presentation (30%)**

There will be a writing assignment due **the week after** the last week of classes (12/15). This assignment requires that the student address a particular research question of interest to them relevant to their professional experience and based upon the content material covered in the course. These papers will be roughly the length and scope of a *Trends In Cognitive Science* style review (7-10 pages) in APA format with complete references. These presentations will outline a specific research question, provide background summary of research on the topic, propose novel experimental design(s) (can be an intervention/curriculum change) or analysis that would answer the specific question posed, and discuss the possible implications of findings from such an investigation.

**Course Evaluations:**

As a member of our academic community, you as a student have a number of important responsibilities. One of these responsibilities is to submit your course evaluations each term through CourseEvalUM in order to help faculty and administrators improve teaching and learning at Maryland. Please make a note now of the dates for *Fall 2018* and the link at which you can access the submission system (www.courseevalum.umd.edu).

**CLASS POLICIES:**

**Academic integrity:** The University of Maryland, College Park has a student-administered Honor Code and Honor Pledge. For more information on the Code of Academic Integrity or the Student Honor Council, please visit http://www.studenthonor council.umd.edu/whatis.html. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. The Code prohibits students from cheating, fabrication, facilitating academic dishonesty, and plagiarism. Instances of this include submitting someone else’s work as your own, submitting your own work completed for another class without permission, or failing to properly cite information other than your own (found in journals, books, online, or otherwise). Any form of academic dishonesty will not be tolerated, and any sign of academic dishonesty will be reported to the appropriate University officials.

**Religious observances:** The University of Maryland policy on religious observances states that students not be penalized in any way for participation in religious observances. Students shall be allowed, whenever possible, to make up academic assignments that are missed due to such absences. However, the must contact the instructor before the
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absence with a written notification of the projected absence, and arrangements will be made for make-up work or examinations.

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Missed single class due to illness: Once during a semester, a student’s self-authored note will be accepted as an excuse for missing a minor scheduled grading event in a single class session if the note documents the date of the illness, acknowledgement from the student that information provided in the note is correct, and a statement that the student understands that providing false information is a violation of the Code of Student Conduct. Students are expected to attempt to inform the instructor of the illness prior to the date of the missed class.*

Major scheduled grading events: Major Scheduled Grading Events (MSGE) are indicated on the syllabus. The conditions for accepting a self-signed note do not apply to these events. Written, signed documentation by a health care professional, or other professional in the case of non-medical reasons (see below) of a University-approved excuse for the student’s absence must be supplied. This documentation must include verification of treatment dates and the time period for which the student was unable to meet course requirements. Providers should not include diagnostic information. Without this documentation, opportunities to make up missed assignments or assessments will not be provided.

Non-consecutive, medically necessitated absences from multiple class sessions: Students who throughout the semester miss multiple, non-consecutive class sessions due to medical problems must provide written documentation from a health care professional that their attendance on those days was prohibited for medical reasons.

Non-medical excused absences: According to University policy, non-medical excused absences for missed assignments or assessments may include illness of a dependent, religious observance, involvement in University activities at the request of University officials, or circumstances that are beyond the control of the student. Students asking for excused absence for any of those reasons must also supply appropriate written documentation of the cause and make every attempt to inform the instructor prior to the date of the missed class.

Late Assignments: All assignments are expected on the day indicated in this syllabus. Any assignment received after the due date will automatically receive a 5% lower grade for every day it is late.

A complete list of academic policies can be found at: http://www.ugst.umd.edu/courserelatedpolicies.html.
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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assigned Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/28</td>
<td>Syllabus</td>
<td></td>
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</tbody>
</table>
National Scientific Council on the Developing Child (May 2010). Early Experiences Can Alter Gene Expression and Affect Long-Term Development. Center on the Developing Child at Harvard University  
**EDHD692: Cognitive (& Neural) Bases of Instruction**

Fall 2018  
Tues 4:30-7:15pm  
Shady Grove Bldg III Rm 4216

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/2</td>
<td>Theoretical Perspectives of Cognitive Development</td>
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<td>10/9</td>
<td>Theoretical Perspectives of Cognitive Development</td>
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<td>10/16</td>
<td>Attention &amp; Executive Control</td>
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<td>10/23</td>
<td>Memory</td>
</tr>
<tr>
<td>10/30</td>
<td>Learning, Reasoning, &amp; Higher Order Cognition</td>
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**Piaget's Cognitive Stages**


**Socio-Cultural Perspective**


**Optional Reading:**


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<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/6</td>
<td>Reading &amp; Dyslexia</td>
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<tr>
<td>11/13</td>
<td>Mathematics</td>
</tr>
<tr>
<td>11/20</td>
<td>Scientific Thinking Conceptual Change</td>
</tr>
<tr>
<td>11/27</td>
<td>Broader Impacts &amp; Issues</td>
</tr>
<tr>
<td>12/4</td>
<td>Final Presentations</td>
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**Dehaene, S. (2013).** Inside the letterbox. *Cerebrum.* (Dana Foundation publication online)


* This schedule is flexible depending on students’ interest and other timing factors.