Instructor
Tracy Riggins
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Office Hours: by appointment
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Course Description and Goals: Developmental cognitive neuroscience is an evolving field that investigates the relations between neural and cognitive development. This seminar will provide an overview of the current research questions, methodologies, and findings from this field. Topics will include: principles of brain development (from a neurocognitive perspective), techniques used for the study of brain development in human infants and children (EEG, ERPs, MRI, fMRI, and NIRS), neurocognitive development (with an emphasis on the domains of memory, attention, language, face processing, and social cognition), developmental plasticity, and neurodevelopmental disorders (e.g., Chromosome 22q11.2 deletion syndrome, Autism, and Williams Syndrome). The goal of the course is to facilitate understanding of the brain bases of developing sensorimotor and cognitive systems, including pathological alterations in developmental disorders.

Prerequisites: This course is open to graduate students in psychology, NACS, human development, linguistics, hearing and speech sciences, kinesiology, and related disciplines. Prior coursework in developmental or cognitive science is preferred but not required.

Course Requirements
Attendance
Because this seminar will rely on the active analysis of course readings during class discussion, attendance and participation are essential both to learning something from the class and for the course grade. Students are expected to read the assigned material and arrive at class ready to engage in a scholarly discussion of the week’s topic.

Readings
Each week, 5 to 6 primary papers are assigned. Students are to complete all the readings for the week before the class meeting and arrive at class reading to engage in a detailed discussion of each paper. Readings will be made available via electronic reserve on Blackboard (www.elms.umd.edu).

Presentations
Each student will lead class discussion 2 times over the course of the semester. Students will work in pairs of 2 and will lead the group’s discussion for the week based on the assigned readings. The goal is to engage the group in a discussion, so detailed formal presentations are discouraged. Instead, leaders should construct a detailed agenda of issues for discussion. Each student on the team is expected to play an active role in leading the discussion. Presenting teams are highly
encouraged to meet with the instructor one to two weeks before their presentation to begin preparation. Separate grades will be given for each student’s contribution to leading the discussion.

**Reaction Papers**

To help facilitate the student lead discussion, students will write 3 reaction papers over the course of the class (1 from each “section” of the course; see below). These papers are due in-class the day of the discussion and can not be written for a class for which the student is leading the discussion. Reaction papers can be based on an individual article, on a pair of articles that contrast, or on the week’s reading as a whole (approximately 3 double spaced pages each).

Section 1: January 29, 2009 – February 26, 2009  
Section 2: March 5, 2009 – April 2, 2009  
Section 3: April 9, 2009 – May 7, 2009

**Final Paper**

Students will write a theoretical review paper (approximately 15 double spaced pages) due Monday, May 11. The paper should review of an aspect of the recent literature in developmental cognitive neuroscience. Ideally, students can use this paper as an opportunity to enrich their perspective on their own research topics. Material should be focused and motivated by a clear set of theoretical and empirical questions and inclusion of various perspectives within the field should be discussed. Papers must be original work for this class.

**Grading**

Late papers will not be accepted and missed assignments cannot be made up except under exceptional circumstances. Final grades will be based on in-class participation (10%), 2 in-class presentations (20% each, 40% total), 3 reaction papers (5% each, 15% total), and a final paper (35%).

**Course Evaluations**

Online course evaluations via CourseEvalUM will be available between Tuesday, April 28 through Wednesday, May 13 at [www.courseevalum.umd.edu](http://www.courseevalum.umd.edu). Please complete this anonymous evaluation. Your participation makes a real contribution to the academic program and provides critical information to faculty and administrators on how to improve teaching and learning at Maryland.

**Class Conduct**

All students are expected to conduct themselves professionally and with respect for the speakers and students who participate in this course.

**Academic Integrity**

The University of Maryland has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. 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. For more information on the Code of Academic Integrity or the Student Honor Council, please visit: [http://www.shc.umd.edu/](http://www.shc.umd.edu/)
Religious Observance
Students who must miss class for religious reasons can do so without penalty. If you anticipate a conflict, it is your responsibility to notify me in writing (email is acceptable) by Friday, February 6, 2009.

Inclement Weather and Campus Emergency Policy
We will hold class unless there is an official closure or delay announced by the University. Official closures and delays are announced on the campus website (http://www.maryland.edu/) and snow phone line (301-405-SNOW) as well as local radio and TV stations. In the event that the campus is closed for an extended time due to emergency, students will be notified by e-mail regarding how the course will be continued or completed. Please make sure that you have a current e-mail address listed with the University at all times.

Students with special needs or disabilities
If you are a student with a documented disability, please speak to me privately by Friday, February 6, 2009 to discuss academic accommodations that will help you be successful in class.
Schedule
Changes in topics or reading assignments will be announced in class.

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<tr>
<th>Section</th>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td></td>
<td>January 29, 2009</td>
<td>Introduction</td>
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<tr>
<td></td>
<td>February 5, 2009</td>
<td>The emerging field of developmental cognitive neuroscience</td>
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<td>February 12, 2009</td>
<td>Brain development</td>
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<td>February 19, 2009</td>
<td>Methods, paradigms, and techniques for studying brain development</td>
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<td>February 26, 2009</td>
<td>Plasticity, experience, self organization, and interactive specialization</td>
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<td>Section 1</td>
<td>March 5, 2009</td>
<td>Vision, orienting, and attention</td>
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<td>March 12, 2009</td>
<td>Perception and recognition: Objects, faces, number, and visual spatial abilities</td>
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<td>March 19, 2009</td>
<td>No class - Spring Break</td>
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<td>March 26, 2009</td>
<td>A neurobehavioral perceptive on memory development (Note:1-3:30pm)</td>
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<td>April 2, 2009</td>
<td>No class - SRCD</td>
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<td>Section 2</td>
<td>April 9, 2009</td>
<td>Language (Note: 1-3:30pm, 2101 Benjamin Bldg)</td>
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<td>April 16, 2009</td>
<td>Executive functioning, planning and development of frontal cortex</td>
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<td>April 23, 2009</td>
<td>Social cognition, emotion/cognition interactions</td>
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<td>April 30, 2009</td>
<td>Future directions and implications for education and media</td>
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<td>Section 3</td>
<td>May 7, 2009</td>
<td>No class - TR away</td>
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January 29 – Introduction

February 5 – The emerging field of developmental cognitive neuroscience


**February 12 – Brain development**


**February 19 – Methods, paradigms, and techniques for studying brain development**


**February 26 - Plasticity, experience, self organization, and interactive specialization**


**March 5 - Vision, orienting, and attention**


March 12 - Perception and recognition: Objects, faces, number, and visual spatial abilities


March 19 – No class – Spring Break

March 26 – A neurobehavioral perceptive on memory development – Tracy Riggins

*Note: Joint class with Dr. Bolger, Meeting time: 1-3:30pm, Location: PLS 1172*


April 2 – No class – Meeting for the Society for Research in Child Development

April 9 – Language – DJ Bolger
*Note: Joint class with Dr. Bolger, Meeting time: 1-3:30pm, Location: Benjamin Building 2102*

Readings TBA

April 16 - Executive functioning, planning and development of frontal cortex


**April 23 - Social cognition, emotion/cognition interactions**


**April 30 - Future directions and implications for education and media**


May 7 – No class – TR away