

**Psychology 3470 – Developmental Cognitive Neuroscience  
Spring 2014**

**Meeting Time: Tuesday/Thursday 3:30-4:45**

**Meeting Place: South Campus 112**

Instructor:	Heather Bortfeld
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Office Hours:	Tuesday/Thursday 9:30-10:30
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**Course Description**

This course presents a broad overview of current research and methods in the field of developmental cognitive neuroscience. We will start with a review of how the brain develops from conception into adulthood. We will then discuss different theories related to how the brain develops and the role of experience in this development, spending substantial time discussing the methods researchers use to study developmental cognitive neuroscience, including metabolic measures (PET, fMRI, optical imaging) and electrophysiological techniques (including EEG and ERPs). We will consider several domains of inquiry, including visual perception and attention, knowledge of objects, faces, number, space, and language, and affective and social development. For each of these, we will consider questions such as: How is knowledge represented in the developing brain? What kinds of developmental changes occur? What are the effects of different kinds of experience, including those presented by genetic deficits, environmental deprivation, and brain damage? What is the developmental time course within which such factors can affect cognitive development? Throughout the course we will discuss both typical and atypically (i.e., Autism, ADHD, etc.) developing populations.

**Required Reading**

Johnson, M. (2011). *Developmental Cognitive Neuroscience*, 3rd Edition. Blackwell.  
*Also:* Journal articles (posted on HuskyCT) will be assigned throughout the semester.

**Grading**

Participation (reaction papers/class contribution/attendance)	25%
Midterm Exam 1	25%
Midterm Exam 2	25%
Final	25%
<b>TOTAL</b>	<b>100%</b>

**Participation credit** will be based on writing assignments, class participation, and attendance. The writing will constitute one page reaction papers that you generate in response to the week's reading. These can be focused on the textbook material or on an additional scientific article assigned to compliment the week's textbook reading. There will be two **midterm exams**. These will be fill-in-the-blank/definition/short answer. Midterms will be non-cumulative, focusing on the material (readings/class lectures/class discussion) covered up to the week of the midterm. Exam 1 covers chapters 1-6; Exam 2 covers chapters 7-12. The **final** will be essays based on five of ten questions. You will receive the complete list (of ten) questions during the last week of class. The five questions on which you will write will be selected (at random from the original ten) in class the morning of the final. You should prepare to provide answers to each without accompanying notes. Asterisks (\* below) indicate midterm dates. You should anticipate submitting a reaction paper regarding the week's reading each Tuesday in class. This will prepare you for a more insightful discussion of the material going forward each week.

Week	Dates	TOPIC	BASE READING
1	T JAN 21 Th JAN 23	<b>Biology of Change</b>	Johnson 1
2	T JAN 28 Th JAN 30	<b>Methods and Populations</b>	Johnson 2 <i>Reaction papers due Thursday Based on 1 or 2</i>
3	T FEB 4 Th FEB 6	<b>From Gene to Brain</b>	Johnson 3 <i>No class Feb 4; no reaction papers</i>
4	T FEB 11 Th FEB 13	<b>Building a Brain</b>	Johnson 4 <i>Reaction papers due Tuesdays going forward</i>
5	T FEB 18 Th FEB 20	<b>Vision, Orienting, and Attention</b>	Johnson 5
6	T FEB 25 Th FEB 27	<b>Perceiving and Acting on the Physical World</b>	Johnson 6
7	*T <b>MAR 4</b> Th MAR 6	<b>Perceiving and Acting on the Social World</b>	Johnson 7 <i>No reaction paper due today</i>
8	T MAR 11 Th MAR 13	<b>Learning and Long-Term Memory</b>	Johnson 8 <i>Reaction paper on either chapter 7 or 8</i>
	T MAR 18 Th MAR 20	Spring Break	NO CLASS
9	T MAR 25 Th MAR 27	<b>Language</b>	Johnson 9
10	T APR 1 Th APR 3	<b>Prefrontal Cortex, Working Memory, &amp; Decision-Making</b>	Johnson 10
11	T APR 8 Th APR 10	<b>Cerebral Lateralization</b>	Johnson 11
12	T APR 15 Th APR 17	<b>Interactive Specialization</b>	Johnson 12
13	*T <b>APR 22</b> Th APR 24	<b>Toward an Integrated Developmental Cognitive Neuroscience</b>	Johnson 13
14	T APR 29 Th MAY 1	Final Exam Questions	...distributed and discussed.
	Th <b>May 8</b>	<b>FINAL EXAM</b>	<b>1-3 pm</b>

“\*” indicates exam dates (exams will take place in class).

## OTHER STUFF...

### ...Regarding Course Organization and Expectations (or: Answers-to-Anticipated-Questions)

**Syllabus:** The syllabus is designed to provide information about the structure, content, and requirements for the course. Please read through it carefully and ask questions if there is anything that is not clear. Review the course requirements and make note of the dates for taking exams. Make-up exams will be allowed with **official** documentation (e.g., a doctor's note). It is your responsibility to plan ahead and to contact me if you are having problems.

**HuskyCT:** Overheads used during the lectures will be posted on the course website *within a day* following each lecture. **I encourage you to check the website regularly**, as I also use it to post announcements, reminders, clarifications, and helpful hints.

**Grades:** Grades will be determined based on the following scale:

97-100...A+	74-76...C
94-96...A	70-73...C-
90-93...A-	67-69...D+
87-89...B+	64-66...D
84-86...B	60-66...D-
80-83...B-	Below 60...F
77-79...C+	

**Cheating:** Cheating will NOT be tolerated. Anyone seen using a cell phone during exams will receive a zero for that exam.

**Incomplete Grades:** Incomplete grades will be given in extremely rare and extraordinary circumstances. Students are expected to plan ahead and to keep up with the reading throughout the term. Any unusual circumstances that may impede a student's progress in the course should be discussed with me as soon as possible. If you are having difficulties understanding the material, come and see me as soon as possible. Such difficulties cannot be remedied if you wait until the last minute to deal with them. Likewise, any student with a disability or special circumstances that may limit his or her ability to perform to full potential in this course should contact me personally as soon as possible.

**Academic Misconduct** (*Excerpt from Part VI, Section A of The Student Code, <http://www.dosa.uconn.edu/>*): "A fundamental tenet of all educational institutions is academic honesty; academic work depends upon respect for and acknowledgment of the research and ideas of others. Misrepresenting someone else's work as one's own is a serious offense in any academic setting and it will not be condoned. Academic misconduct includes, but is not limited to, providing or receiving assistance in a manner not authorized by the instructor in the creation of work to be submitted for academic evaluation (e.g. papers, projects, and examinations); any attempt to influence improperly (e.g. bribery, threats) any member of the faculty, staff, or administration of the University in any matter pertaining to academics or research; presenting, as one's own, the ideas or words of another for academic evaluation; doing unauthorized academic work for which another person will receive credit or be evaluated; and presenting the same or substantially the same papers or projects in two or more courses without the explicit permission of the instructors involved. A student who knowingly assists another student in committing an act of academic misconduct shall be equally accountable for the violation, and shall be subject to the sanctions and other remedies described in The Student Code."

**Americans with Disabilities Act:** *The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities.*