

**Psychology 5470 – Developmental Cognitive Neuroscience
Spring 2013**

Meeting Time: Wednesday 1:00-4:00

Meeting Place: South Campus 113

Instructor:	Heather Bortfeld
Office:	BOUS 109
Office Hours:	Tuesday 9:30-11:30
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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: Assigned journal articles (posted on HuskyCT the Wednesday before the relevant week of class).

Grading

Exam 1	25%
Exam 2	25%
Final Paper	25%
Participation	25%
TOTAL	100%

There will be two essay **exams**. They will be non-cumulative, focusing on the material (readings/class lectures/class discussion) covered through the week of the exam. **Exam 1** will cover chapters 1-6 and related readings; **Exam 2** will cover 7-13 and related readings. Exams will be take-home essay format. Questions will be distributed the week before the due date and due via email prior to the beginning of the next class. A research proposal will be due at the end of the semester. This proposal should follow the format of an NIH NRSA. I will post links on the HuskyCT website relevant to this format. During the final two weeks of class, you each will give an in-class presentation regarding your proposal. I will provide more details about my expectations for your proposal presentations later in the semester.

Week	Dates	TOPIC	BASE READING
1	W Jan 23	Biology of Change	Johnson 1
2	W Jan 30	Methods and Populations	Johnson 2
3	W Feb 6	From Gene to Brain	Johnson 3
4	W Feb 13	Building a Brain	Johnson 4
5	W Feb 20	Vision, Orienting, and Attention	Johnson 5
6	W Feb 27	Perceiving and Acting on the Physical World	Johnson 6
*7	W Mar 6	Perceiving and Acting on the Social World	Johnson 7
8	W Mar 13	Learning and Long-Term Memory	Johnson 8
	W Mar 20	Spring Break	...no class.
9	W Mar 27	Language	Johnson 9
10	W Apr 3	Prefrontal Cortex, Working Memory, & Decision-Making	Johnson 10
*11	W Apr 10	Cerebral Lateralization	Johnson 11
12	W Apr 17	Interactive Specialization & Toward an Integrated DCN	Johnson 12 & 13
13	W Apr 24	Project Presentations (in class)	
14	W May 1	Project Presentations (in class)	
	F May 10	FINAL PAPER DUE	

“*” indicates exam due dates (exam questions will be distributed the week before due date).

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 only under extraordinary circumstances (that include official documentation). It is your responsibility to plan ahead and to contact me if you are having problems.

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

94-100...A

90-93...A-

87-89...B+

84-86...B

80-83...B-

77-79...C+

74-76...C

70-73...C-

67-69...D+

64-66...D

60-66...D-

Below 60...F

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.

Difficulties: 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.*