



Spring 2010

## PSYCHOLOGY 786: COGNITIVE DEVELOPMENT

### Organization

**Meetings:** Wednesdays, 3:00 PM – 5:45 PM, Room 218 Poe Hall  
**Homepage:** [vista.ncsu.edu](http://vista.ncsu.edu)  
**Professor:** Lynne Baker-Ward, Ph. D.  
**Office Hours:** Tuesdays, 10:30 – 11:30 AM; Thursdays, 1:00 – 3:00 PM; Or By Appointment  
**Office Location:** 760 Poe Hall  
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**Campus Box:** Psychology Office, 640 Poe Hall

### Overview

**Audience:** PSY 786 is a core course for doctoral students in developmental psychology. PSY 584 (Advanced Developmental Psychology: Theories of Development) is a prerequisite for this class although this requirement may be waived. Students whose home departments are outside of psychology are welcome to enroll and are encouraged to discuss with the professor the match between their own interests and the course objectives.

**Objectives:** This course is designed to provide graduate students with a) a description of the phenomena of cognitive development, b) a critical examination of the explanations for age-related changes in cognitive development and c) a critical overview of current research and theory in the area and d) a forum for the exploration of the implications of the material for the optimization of developmental outcomes. The focus is on cognitive development from birth through childhood, although some topics will encompass adolescent development. Reflecting the ontogeny of cognition and the literature in the field, the emphasis will be on development during infancy and early childhood.

The objectives of most of the class meetings will be to provide a *developmental analysis* of components of cognition, including perception, memory, representation, categorization, and problem solving. A developmental analysis requires the understanding of the *origins*, *maintenance*, and *change* of the aspect of cognition under examination. The first goal of the course is to acquaint students with the "state of the art" of contemporary cognitive development as the basis for their own research and practice. Hence, very recent work from the leading journals forms the basis for the primary source readings. A second goal is to assist students in

developing professional competencies in reviewing, integrating and applying research findings. An additional goal is to assist students in the development or the broader conceptualization of their own research projects.

**Themes:** Central questions in the study of children's thinking will be addressed throughout the course. As presented by R. S. Siegler and M. W. Alibali in the text, *Children's Thinking* (4<sup>th</sup> edition, p. 3), these major questions are:

- 1) Are some capabilities innate?
- 2) Does children's thinking progress through stages?
- 3) How do changes in children's thinking occur?
- 4) Why do individual children differ so much from each other in their thinking?
- 5) How does development of the brain contribute to cognitive development?
- 6) How does the social world contribute to cognitive development?

In addition, given the lifespan nature of psychology, the following issue will also guide our discussion throughout the semester:

- 7) How does cognitive development in childhood correspond to cognitive functioning across the lifespan? (For example, do children and adults learn in the same way?)

**Topics:** The course will begin with an introduction to the study of cognitive development, including an examination of the emergence of cognitive neuroscience and its implications for the field. Following this introduction, meetings will be devoted to the study of core components of cognitive development, as outlined below and the course schedule. Several meetings will incorporate preparation for the major assignments and the critical review of student products.

### Requirements

**Academic Integrity:** Students are expected to work within the letter and spirit of the University's Code of Student Conduct. For a statement of policies and practices, see the following website: [http://www.ncsu.edu/stud\\_affairs/osc/code\\_conduct/](http://www.ncsu.edu/stud_affairs/osc/code_conduct/).

**Readings:** The text listed below is the basic reading for the course and is required. In general, this introductory book will provide the background necessary to read the primary source materials assigned for each class session, as listed on the course schedule. These readings are available as .pdf files on the course homepage.

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Siegler, R. S., Alibali, M. W. (2005). *Children's thinking* (4th edition). Upper Saddle Rivers, NJ: Prentice Hall. [ISBN: 0-13-11384-4; \$73.60 new.]

**Participation:** The course will use a modified seminar format. Class meetings will consist primarily of discussion of the week's readings. Participants are encouraged to use the message board on the course homepage to share questions and points for discussion in advance of the meetings. In examining the core topics, the discussion will begin with a description of the development of the area of cognition under consideration; continue with the examination of the factors responsible for developmental transitions; address the strengths and limitations of the present level of understanding; and culminate in an exploration of the implications of the work

for research and application. Given this format, it is imperative that all students come prepared to participate in these discussions. Attendance at every meeting is expected. Please contact the professor if you are unable to attend class at any point during the semester.

Some classes include a brief in-class writing assignment or other activity, graded as  $\checkmark$ ,  $\checkmark+$ , or  $\checkmark-$ . These in-class assignments will contribute to the students' participation grades.

**Article Discussion:** Each student will also be responsible for leading the discussion of one of the assigned articles on two occasions. The presenter should be prepared to provide relevant background, summarize the reading, clarify difficult points, and discuss the theoretical implications of the findings. In general, students should select empirical reports for presentation. Each presenter will fill out a standard form to complete a self-appraisal and will turn in this form to the professor's box in 640 Poe the day after the class meeting. In addition, the professor will complete the rating and return the form to the student. Major discrepancies between ratings will be discussed. Service as the discussion leader will be considered in the assignment of the participation grade.

**Written Assignments:** Students will complete three independent, relatively brief written assignments designed to foster professionally relevant skills. These assignments will be described in detail in documents distributed at least two weeks in advance of the submission dates.

- 1) The first assignment will involve the review of a research report in the area of cognitive development with regard to the extent that the work meets stated criteria for publication. Portions of a class will be devoted to a class critique of the article.
- 2) The second assignment addresses the selection and justification of a dependent variable to be used in an experiment examining an aspect of cognitive development.
- 3) The final assignment involves answering a practical question in the area (i. e., a question that might be generated by a parent or teacher) from the perspective of theory and research (e. g., "Will playing classical music increase my child's IQ?"; "Will my child remember his grandfather, who died when the child was three?"; "Does research on continuing brain development in adolescent justify the argument that juvenile offenders should never be tried as adults?"). This assignment will be submitted as a PowerPoint presentation and will be presented in class on the dates indicated on the syllabus.

### Special Arrangements

All reasonable adaptations that will enhance learning will be respected. Students with any special needs or requests should see the instructor as soon as possible. Every effort will be made to ensure that reasonable accommodations are quickly in place. Regardless of disability status, all students who wish to do so are encouraged to tape-record class, request copies of transparencies or other visual aids for photocopying, share class notes, obtain individual assistance from the professor (during office hours or by appointment), use word processors in class, move their seats, etc. Students who use scribes or other adaptations not listed above should discuss their needs with the professor during my office hours within the first two weeks of the semester.

Some changes in the syllabus may be arranged, including the dates for the submission of written assignments, which may be altered upon the consensus of the class; the assigned readings, for which some substitution may be made upon request.

Participants are encouraged to discuss with me any concerns they have regarding assignments, use of class time, grading, etc. Formative evaluation is welcome at any point. An anonymous, written evaluation form will be distributed on the website at mid-term to elicit students' formative feedback.

### **Evaluation**

**Evaluation:** The different components of the course will be weighted as follows in the calculation of the final grade: Participation (including in-class assignments, service in presenting articles, and subjective indicators of engagement), 25%; Assignment 1, 20%; Assignment 2, 20%; Essay 3, 35%. Students will be given the option upon request of completing an additional assignment to partially compensate for a disappointing performance on an earlier assignment. Letter course grades will be assigned on the traditional A, B, C, (etc.) scale. Plus/minus grading will be used.