

**PSYC 430: COGNITIVE DEVELOPMENT  
FALL 2010**

Dr. Andrea Greenhoot  
529A Fraser  
[agreenhoot@ku.edu](mailto:agreenhoot@ku.edu)  
864-9842

GTA: Tiffany Meites  
324 Fraser  
[tmeites@ku.edu](mailto:tmeites@ku.edu)

GTA: Shengkai (Sunkey) Sun  
528 Fraser  
[shenkaisun@ku.edu](mailto:shenkaisun@ku.edu)

**GENERAL COURSE INFORMATION**

**Class Meetings**

Tuesday and Thursday, 2:30-3:45, 100 Smith

**Course Description**

PSYC 430 is a survey course on the mental changes that take place from birth through adolescence. The course covers the development of vision and other perceptual abilities, attention, memory, language, problem solving and reasoning, and social cognition, or thinking about social phenomena.

**Course Objectives**

The main goals of this course are (1) to promote your understanding of the development of basic cognitive abilities during infancy, childhood, and adolescence; (2) to introduce you to the use of research methods in studying cognitive development; (3) to teach you how to apply newly learned concepts to novel and meaningful settings; and (4) to foster the development of skills that will facilitate further learning and reasoning, including library skills, critical thinking, argument development, and verbal and written expression.

**Psychology Department Objectives**

This course is also organized to promote your achievement of several goals of the undergraduate curriculum in Psychology. Psychology students should:

1. acquire and update a knowledge base and develop an understanding of psychological theories
2. be able to understand, critically evaluate, organize, and integrate information
3. know the power, scope, strength, and limitations of scientific evidence, and aspire to use these standards ethically and where appropriate
4. understand the basic principles and applications of psychology and articulate how these principles can be useful in their everyday lives

**The Instruction Team**

This course is designed and supported by Dr. Greenhoot along with a team of graduate students. We will be available for questions about course material and assignments individually by appointment or during weekly office hours. Each of us will post our office hours on the Blackboard site for this course.

**COURSE MATERIALS**

**Coursepacks**

There is no textbook for this course. Instead, I have constructed a coursepack of readings (consisting of book chapters and review articles and empirical articles from journals) that is available for purchase at the KU Bookstore. Please bring the readings to every class period, as we will typically spend some time in class referring to some aspects of the reading. The readings have been bound into three separate coursepacks, one per section of the course, so as to lighten your load on campus.

**Blackboard**

There is a Blackboard (Bb) site for this course. Please check Bb regularly for important announcements, materials, and so on. Please see one of the GTAs if you are not familiar with Blackboard.

## COURSE REQUIREMENTS

### Exams

There will be two midterms and a final exam, each consisting of multiple choice, short-answer, and essay-type “extended” questions. We will post a few sample questions on Blackboard before the first test. The midterms will be non-cumulative. Part of the final will cover the last section of the course, whereas the other part will cover material from the entire semester. Students should adjust travel and work schedules to avoid time conflicts with the exams. We expect everyone will take the examinations as they are scheduled. However, students with medical or other serious reasons for missing a midterm may take a makeup exam on the last regularly scheduled class meeting day (December 9). Students who wish to take the makeup must notify Dr. Greenhoot via email *before* the originally scheduled exam time. If a student misses a midterm, and then also misses the makeup, he or she will receive a 0 on the missed exam.

### Application Essay

Early in the semester, you will complete an essay that takes the form of a “letter to the editor” of a magazine or newspaper (about 1-2 pages single spaced). This assignment (worth 50 points) is designed to give you some practice applying research on cognitive development to “the real world,” and writing about it, while reinforcing important aspects of the course material. We will provide you some summaries of empirical research on an issue in cognitive development, and your task will be to draw conclusions about the research and apply the findings to a real-world situation. More details will be posted on Bb as the deadlines approach. You will submit your essays via Bb by 5pm on the due date.

### Term Project

You will be required to complete a term project that involves using current research in cognitive development to write two short papers: the first will be an academic-style review paper in which you summarize and integrate the research about a topic related to the course. Once we have graded these papers, you will construct an “advice column” providing practical recommendations to parents about a topic related to the course. Thus, the capstone of this project is to produce an essay that is much like the application essay. The major difference is that you will be asked to identify, locate, read and analyze the research yourself (with assistance from the instruction team). You will be provided several hypothetical questions on topics related to cognitive development sent in by readers of a magazine about children and parenting (e.g., *Should I enroll my toddler in a Spanish class for infants and toddlers?*). The project has been divided into several steps to be carried out over the course of the semester, including

1. **Article Selection (25 pts)** - The identification and submission of four scientific journal articles relevant to evaluating your chosen questions
2. **Rough Draft of Psychology Paper, Peer Review and Analysis (25 pts)**- Writing and submitting summaries of each article and participating in an in class discussion of those summaries, and
3. **Term Paper (100 pts)** - Writing a paper reviewing and integrating the research presented in the four journal articles, and making practical recommendations based on the research. Submission of rewrites of the paper will be optional but encouraged.
4. **Advice Colum (50 pts)**- Using the material in your Term Paper to write an advice column. This essay will provide practical recommendations to parents in response to a reader question, using research on the issue to support your arguments.

This project will be discussed in more detail during the first two weeks of class. A full description is provided on Bb.

### Participation

We will use two general strategies to enhance participation class meetings.

1. **Reading Responses.** First, each week there is a reading due (almost always on Tuesdays), we will post a set of approximately five Reading Response questions on Blackboard. You have until the class period in which the reading is due to get all questions correct, retaking the questions as many times as necessary. For each set of Reading Responses that you get correct, you will earn 4 pts. There will be 15 sets (60 pts) total. You may, at any point in the semester, choose to temporarily opt out of one set, but to earn credit for it, you will need to submit a list of the major points of the assigned readings for that week to the GTA before the last day of class.

2. **Participation Exercises.** We will frequently prepare “participation” assignments to be carried out in class, *or occasionally outside of class*. Participation assignments are designed to teach you a particular skill and will also form the basis of class discussions. In addition, as a way of rewarding students who attend class and participate regularly, we will keep track of the work you complete on these assignments, and at the end of the semester we will use this information to calculate a participation grade. We will calculate participation scores (out of 20 points) in the following way: completion of 90% or more of collected assignments= 20 pts; 80-89% of collected assignments= 18 pts, 60-79% = 17 pts, 50-69%= 15 pts, 30-49%= 10 pts, and less than 30% = 0 pts.

### EXTRA CREDIT

You may earn up to 12 points of extra credit through one of two mechanisms this semester:

**Extra Credit Option 1.** A subset of students in the class (to be randomly selected by the Office of Institutional Research at KU) will be given the opportunity to complete two writing and problem solving assignments (the CLA) outside of class time in a computer lab in late October. Each assignment will last 90 minutes, and you will be asked to do two sessions. We will be using student performance on these assignments to evaluate the effectiveness of this course in teaching students how to write about their ideas, critically evaluate sources of information, and solve problems. You will earn 12 points of extra credit if you complete both sessions; note that partial credit will not be awarded for partial completion. If you are not selected or choose not to participate in the CLA, you may earn extra credit through Option 2.

**Extra Credit Option 2.** Collect and post on Bb up to 6 comic strips or articles from the popular media (i.e., the newspaper, popular magazines, or on-line news source or magazines) published in the last 6 months (January 2010 or later) that are related to topics we are covering in the course. *Comic strips* must illustrate specific cognitive developmental concepts from the course, and for each one you must also turn in a paragraph that clearly and accurately explains how it illustrates the concept(s). *Articles* must present one or more claims about cognitive development, and for each one you must also submit a short essay that discusses whether the claim is true according to research on the issue (this can be research discussed in class or the book), referring to that research to support your points. Each article or comic strip can earn you 2 points, but to get the full 2 points you must also turn in the short discussion. You should not be surprised to learn that it is not acceptable to use an article or comic already featured in the textbook. These are due by Thursday, December 2, but may also be submitted progressively over the course of the semester (recommended).

### COURSE POLICIES

#### Attendance

It is a good idea to attend class regularly. During class sessions we will cover material and carry out learning activities that are not replicated in the textbook, so regular attendance will significantly enhance your understanding of the course material. In addition, it will be difficult to earn a high participation grade with infrequent class attendance.

#### Deadlines

Deadlines for the written assignments are firm. For the term project and application essays, the grades will be reduced by 10% for each day the assignment is late.

#### Students with Disabilities or Special Needs

Students who have special needs as documented by KU's office of Disability Resources may require special accommodations to meet course requirements. We are happy to comply with requests for the types of accommodations that are indicated as appropriate by Disability Resources, given that the request is made in advance of the due date for meeting the course requirement. If you think you may have a disability, you should contact Disability Resources (<http://www.achievement.ku.edu/disability/>) to acquire the proper documentation.

### Academic Misconduct

Academic misconduct will not be tolerated in this class. An instructor may, with due notice to the student, treat as unsatisfactory any student work which is a product of academic misconduct. Cases of academic misconduct may result in any or all of the following penalties: reduction of grade, admonition, warning, censure, transcript citation, suspension, or expulsion. The following information about Academic Misconduct is discussed in Article II, Section 6 of the rules and regulations of the University Senate. “*Academic misconduct by a student shall include, but not be limited to, disruption of classes; threatening an instructor or fellow student in an academic setting; giving or receiving of unauthorized aid on examinations or in the preparation of notebooks, themes, reports or other assignments; knowingly misrepresenting the source of any academic work; unauthorized changing of grades; unauthorized use of University approvals or forging of signatures; falsification of research results; plagiarizing of another's work; violation of regulations or ethical codes for the treatment of human and animal subjects; or otherwise acting dishonestly in research.*”

It is **your** responsibility as a KU student to make sure you understand academic honesty and misconduct. The policy is described at this link: <https://documents.ku.edu/policies/governance/USRR.htm#art2sect6>.

The website of the KU Writing Center provides some excellent information and resources on how to avoid plagiarism. <http://www.writing.ku.edu/guides/index.shtml?1#plagiarism> We will be asking you to familiarize yourself with these materials this semester.

### Grades

Each of the above assignments contributes the following towards your final grade:

Assignment	Point Value
Application Essay	50
Midterms 1 and 2	2 x 100 = 200
Term Project (Parts I through IV)	200
Participation	
In-Class Participation	20
Reading Responses	60
Final Exam	120
650 = Total Possible Points Accumulated	

In general, we will use a standard, 10 percentage point grading scale for the assignment of final letter grades. Plusses and minuses will be used at the instructor’s discretion, for scores that are very high or very low within a given grade range.

You may keep track of your grades on Blackboard, where we will post your grade on each assignment throughout the semester. The TAs will be in charge of entering and keeping track of most grades, including participation assignments. Therefore, if you have questions about your grades, please contact them before contacting Dr. Greenhoot. Given that this is a large course, it is possible that we will occasionally make clerical errors in entering the grades. It is your responsibility to ensure that you have gotten the appropriate amount of credit for each assignment you complete. *Final grades in this course will not be curved and should be considered firm; the ONLY situation in which we will change a final grade is when we have made a clerical error.*

## PSYC 430 TENTATIVE COURSE OUTLINE

### SECTION 1: Big Issues and Broad Perspectives on Cognitive Development

<b>Date</b>	<b>Topic Covered</b>	<b>Reading #</b>
TH August 19	Course introduction	
T August 24	Major Themes.	1, 2 RR1
TH August 28	Cognitive Neuroscience	
T August 31	Review of Research Methods, Intro to Term project	3 RR2
TH September 2	A History Lesson-- Piaget's Theory	4, 5 RR3
<b>Friday September 3</b>	<b>Application Essay 1 Due-Safeassign on Bb</b>	
T September 7	Literature Search Lab/Current frameworks	6 RR4
TH September 9	Literature Search Lab/Current frameworks	
T September 14	Information Processing ( <i>App Essay Graded</i> )	7 RR5
TH September 16	Information Processing	
	<b>Articles and Paragraphs Due</b>	
T September 21	Sociocultural Theories	8, 9 RR6
TH September 23	<b>Midterm 1 (Article Feedback)</b>	

### SECTION 2: Development of Basic Thinking Skills: Perception, Representation, Memory, and Language

<b>Date</b>	<b>Topic Covered</b>	<b>Reading #</b>
T September 28	Infant Perception	10, 11 RR7
TH September 30	Infant Perception	
T October 5	Conceptual Development	12, 13 RR8
TH October 7	Conceptual Development/Paper Rubric Discussion	
T October 12	Term Project: Peer-Review of Rough Drafts, Article Analysis	
	<b>Rough Drafts Due</b>	
TH October 14	Fall Break	
T October 19	Memory Development	14 RR9
TH October 21	Memory Development	
T October 26	<b>Papers Due -SafeAssign on Bb</b>	
TH October 28	Language Development	15 RR10
T November 2	Language Development	16 RR?
<b>TH November 4</b>	<b>Midterm 2 (Papers Graded)</b>	

### Section 3: Coordinating Basic Skills for Complex Thinking: Reasoning, Academic Skills, and Intelligence.

<b>Date</b>	<b>Topic Covered</b>	<b>Reading #</b>
T November 9	Reasoning, Problem Solving, and Decision Making	17, 18
TH November 11	Reasoning, Problem Solving, and Decision Making	
	<b>Paper Revisions Due (optional)</b>	
T November 16	Academic skills	19
TH November 18	Academic Skills	
T November 23	Intelligence	20
	<b>Advice Column Due-SafeAssign on Bb</b>	
<b>TH November 25</b>	<b>Thanksgiving Break</b>	
T November 30	Intelligence	
TH December 2	Intelligence	21
T December 7	Course Synthesis and Review (Advice Column graded)	
TH December 9	Makeup exams --No class if you have taken both midterms	
WED December 15	1:30-4:00 <b>Final Exam- Advice Column Rewrites Due</b>	

**PSYC 430 READING LIST****SECTION 1: Big Issues and Broad Perspectives on Cognitive Development (In Coursepack VOL. 1).**

1. Siegler, R.S., & Alabali, M.W. (2005). *Children's Thinking, 4<sup>th</sup> Edition (Chapter 1: An Introduction to Children's Thinking*, pp. 1-22). Upper Saddle River, NJ: Prentice Hall.
2. Nelson, C.A. (1999). Neural plasticity in human development. *Current Directions in Psychological Science*, 8(2), 42-45.
3. Siegler, R., Deloache, J., & Eisenberg, N. (2011). *How Children Develop* (Chapter 1, pp. 24-38). New York, NY: Worth.
4. Brainerd, C.J. (1996). Piaget: A centennial celebration. *Psychological Science*, 7, 191-195.
5. Siegler, R., Deloache, J., & Eisenberg, N. (2011). *How Children Develop* (Chapter 4, pp. 130-143). New York, NY: Worth.
6. Dixon, W.E. (2003). *Twenty Studies that Revolutionized Child Psychology.(The Drawbridge Studies*, pp.60-72). Upper Saddle River, NJ: Prentice Hall.
7. Bjorklund, D.F. (2005). *Children's Thinking: Cognitive Development and Individual Differences (Chapter 5: Information Processing Theories*, pp. 118-142). Belmont, CA: Wadsworth/Thompson Learning.
8. Wertche, J.V., & Tulviste, P. (1992). L.S. Vygotsky and Contemporary Developmental Psychology. *Developmental Psychology*, 28, 458-550.
9. Fagot, B.I., & Gauvain, M. (1997). Mother-child problem solving: Continuity through the early childhood years. *Developmental Psychology*, 33, 480-488.

\*\*\*\*\*TENTATIVE READING LIST FOR VOLUMES 2 and 3 as of 8/20/10

**SECTION 2: Development of Basic Thinking Skills: Perception, Representation, Memory, and Language**

10. Bjorklund, D.F. (2005). *Children's Thinking: Cognitive Development and Individual Differences (Chapter 7: Infant Perception*, pp. 181-201). Belmont, CA: Wadsworth/Thompson Learning.
11. Pascalis, O., de Haan, M., & Nelson, C.A. (2002). Is face processing species-specific in the first year of life? *Science*, 296, 1321-1323.
12. Hamlin, J.K., Wynn, K., & Bloom, P. (2007). Social evaluation by preverbal infants. *Nature*, 450, 557-560.
13. Deloache, J., Miller, K.F., & Rosengren, K.S. (1997). The credible shrinking room: Very young children's performance with symbolic and nonsymbolic relations. *Psychological Science*, 8, 308-313.
14. Flavell, J., Miller, P., & Miller, S. (2002). *Cognitive Development (Chapter 7: Memory*, pp. 233-261). Upper Saddle River: Pearson.
15. Dixon, W.E. (2003). *Twenty Studies that Revolutionized Child Psychology. (Language Development and the Big Bang Theory*, pp. 87-99). Upper Saddle River, NJ: Prentice Hall.
16. Siegler, R.S., & Alabali, M.W. (2005). *Children's Thinking, 4<sup>th</sup> Edition (Chapter 6: Language Development*, pp. 183-225). Children's Thinking (4<sup>th</sup> Edition). Upper Saddle River, NJ: Prentice Hall.

**Section 3: Coordinating Basic Skills for Complex Thinking: Reasoning, Academic Skills, and Intelligence.**

17. Flavell, J., Miller, P., & Miller, S. (2002). *Cognitive Development (Chapter 5: Reasoning and Problem Solving*, pp. 149-158). Upper Saddle River: Pearson.
18. Jacobs, J.E., Klaczynski, P.A. (2002). The development of judgment and decision making during childhood and adolescence. *Current Directions in Psychological Science*, 11, 145-149.
19. Siegler, R.S., & Alabali, M.W. (2005). *Children's Thinking, 4<sup>th</sup> Edition. (Chapter 11: Academic Skills*, pp. 381-421). Upper Saddle River, NJ: Prentice Hall.
20. Neisser, U., Boodoo, G., Bouchard, T.J., Boykin, A.W., Brody, N. et al. (2004). Intelligence: Knowns and unknowns. In M. Gauvain & M. Cole (Eds.), *Readings on the Development of Children*: New York, NY: Worth.
21. Zeskind, P.S., & Ramey, C.T. (1978). Fetal malnutrition: An experimental study of its consequences on infant development in two caregiving environments. *Child Development*, 49, 1155-1162.