

PSYC 430: COGNITIVE DEVELOPMENT
Spring 20XX

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GENERAL COURSE INFORMATION

Class Meetings

Tuesday and Thursday, 9:30-10:45, 2096 Dole

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

By the end of this course, students should be able to:

1. Describe major patterns of change in basic cognitive abilities during infancy, childhood, and adolescence;
2. Articulate the major themes and explanations of cognitive development, and use empirical evidence to support them,
3. Apply newly learned concepts in cognitive development to novel and meaningful settings.
4. Identify, locate, and critically evaluate psychological research articles on various issues in cognitive development
5. Draw conclusions about based on data presented in tables, graphs, or psychological research reports,
6. Develop clear, effective and scientifically-sound arguments in written forms of expression, for both academic and more general audiences.

Class Format

This class is “flipped” in that we expect you to use your time outside of class to prepare for by completing the assigned readings and/or watching assigned videos. This allows us to use in-class time for learning activities that produce deeper learning than lecture alone- collaborative problem solving, analysis of case studies, critical reading, writing, and more. In the second week of class, we will assign students to learning teams, and these teams will work together on in-class activities much of the semester. Students will have the opportunity to “grade” and give feedback to their group members at regular intervals across the semester. Given this class structure, **it is essential that students prepare for class, and that they participate in class activities.**

The Instruction Team

This course is designed and supported by Dr. Greenhoot and Cynthia Siew, a doctoral student in the cognitive psychology program. 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.

COURSE MATERIALS

Reading

There is no textbook for this course. Instead, I have posted a set of readings (newspaper and magazine articles, journal articles, and book chapters) and videos on Blackboard. You may either read the readings on screen or print them out, but please bring the readings to every class period, as we will typically spend some time in class referring to some aspects of the reading.

Blackboard

Announcements, handouts, assignments, readings, and grades will all be posted on a Blackboard site for this course. Please check Bb regularly for important announcements, materials, and so on. Please see Cynthia if you are not familiar with Blackboard.

COURSE REQUIREMENTS

Preparation for Class (Homework, 70 points)

We expect you to do the assigned reading before the class period for which it is due. Each time there is a reading due, you will respond to an integrative question (or two) on Blackboard. Please complete the homework by 5pm the day before that class period, so that we have a chance to review your responses and use them to plan class time. Each homework will be worth 5 points, and there will be at least 14 (70 points total). You may, at any point in the semester, choose to temporarily opt out of one homework, but to earn credit for it, you will need to submit it at the time of that unit test.

Engaged Learning Assignments (ELAs, 200 points)

Much of class time will consist of completing a variety of assignments (short to medium-length problems or projects) in collaboration with your assigned learning team. You will submit these assignments as a team, and each is worth 20 points.

Tests (450 points)

There will be three tests consisting of short-answer and essay-type “extended” questions. We will post a few sample questions on Blackboard before the first test. The tests are cumulative to the degree that the material is cumulative. 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 must contact Dr. Greenhoot via email *before* the scheduled exam time in order to take a make-up.

Term Project

You will 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 and provided feedback on these papers, you will construct an “advice column” providing practical recommendations to parents about a topic related to the course. To complete these assignments, you will need to identify, locate, read and analyze research relevant to the topic (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., *Do Baby Einstein-type videos enhance infant cognitive development?*). The project has been divided into several steps over the course of the semester, including:

1. **Article Selection (30 pts)** - The identification and submission of four scientific journal articles relevant to evaluating your chosen questions
2. **Summaries, Peer Review and Analysis (40 pts)**- Writing and submitting summaries of each article and participating in an in class discussion of those summaries, and
3. **Term Paper (80 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 Column (100 pts)**- Using the material in your Term Paper to write an advice column, **for a real audience (via the web)**. This essay will provide practical recommendations to parents in response to a reader question, using research on the issue to support your arguments. The best advice columns on each topic will be posted on an interactive, public website.

This project will be discussed in more detail during week two of class. A full description will be provided on Bb.

Class and Team Contributions (30 points)

Part of this grade will depend on your contributions to your Learning Team. Periodically we will ask you to rate yourself and your team members; this feedback will go to the instructors as well as the team members (in aggregated form, to fuel improvement). The rest of this grade depends on your contributions to the overall working environment in the class. All students will begin with a C. Students who attend class regularly but do not contribute to the class discussion, or students who do not consistently attend but make valuable contributions when they do will receive this grade. Students who attend regularly and consistently contribute to class discussions will receive a B. Students who regularly make valuable, thoughtful contributions to class and generally contribute to a positive working environment will receive an A. Students who detract from the working environment or who infrequently attend class will receive grades of D or F on the in-class portion of this grade.

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

Student Access Services in the Academic Achievement and Access Center (AAAC) coordinates academic accommodations and services for all eligible KU students with disabilities (<http://access.ku.edu/>). If you have a disability for which you wish to request accommodations and have not contacted the AAAC, please do so as soon as possible (in 22 Strong Hall, or at 785-864-4064, V/TTY). If you think you may have a disability, you should contact AAAC to acquire the proper documentation.

Diversity and Inclusive Practices

The University of Kansas supports an inclusive learning environment in which diversity and individual differences are understood, respected, and appreciated. We believe that all students benefit from training and experiences that will help them to learn, lead, and serve in an increasingly diverse society. All members of our campus community must accept the responsibility to demonstrate civility and respect for the dignity of others. Expressions or actions that disparage a person's or group's race, ethnicity, nationality, culture, gender, gender identity / expression, religion, sexual orientation, age, veteran status, or disability are contrary to the mission of the University. We expect that KU students, faculty, and staff will promote an atmosphere of respect for all members of our KU community.

Additionally, diversity of thought is appreciated and encouraged, provided you can agree to disagree. It is the instructor's expectation that ALL students experience this classroom as a safe environment. It is likely you may not agree with everything that is said or discussed in the classroom. Courteous behavior and responses are expected at all times. When you disagree with someone, be sure that you make a distinction between criticizing an idea and criticizing the person.

Recording Class Periods

Course materials prepared by the instructors, together with the content of all lectures and class activities are the property of the instructors. Any recording of class periods without the consent of the instructor is prohibited. On request, the instructor will usually grant permission for students to audio record class periods, on the condition that these recordings are only used as a study aid by the individual making the recording. Unless explicit permission is obtained from the instructor, recordings of class sessions may not be modified and must not be

transferred or transmitted to any other person, whether or not that person is enrolled in the course. Commercial note-taking is not permitted in this class.

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.

Disruptive Behavior

The scope and content of the material included in this course are defined by the instructor in consultation with the responsible academic unit. While the orderly exchange of ideas, including questions and discussions prompted by lectures, discussion sessions and laboratories, is viewed as a normal part of the educational environment, the instructor has the right to limit the scope and duration of these interactions. Students who engage in disruptive behavior, including persistent refusal to observe boundaries defined by the instructor regarding inappropriate talking, discussions, and questions in the classroom or laboratory may be subject to discipline for non-academic misconduct for disruption of teaching or academic misconduct, as defined in the Code of Student Rights and Responsibilities (CSRR), Article 22, Section C, and the University Senate Rules and Regulations, Section 2.4.6. Article 22 of CSRR also defines potential sanctions for these types of infractions.

Grades

Each assignment contributes the following towards your final grade:

Assignment	Point Value
Homework @ 5 pts each	70
ELAs 10 @ 20 pts each	200
Term Project (Parts I through IV)	250
Class and Team Contributions	30
Tests 3 @ 150 points each	450

1000 = Total Possible Points

In general, we will use a standard, 10 percentage point grading scale for the assignment of final letter grades. Pluses 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. 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

Week	Date	Topic Covered	Reading/Preparation
UNIT 1: Foundations of Cognitive Development			
1	T January 20	1.1. Course Introduction, Major Themes	
	TH January 22	1.1. Major Themes and Questions	<ul style="list-style-type: none"> • Siegler and Alibali (2005), Ch. 1 • Reading Journal • Find popular article
2	T January 27	1.1. Drilling Down into two Themes: Social Interaction and cognitive development and How does development happen?	<ul style="list-style-type: none"> • Dixon (2003) Ch. 1: from Mollusks to Rugrats • Reading Journal
	TH January 29	1.2. Evaluating and Synthesizing Research in Cog. Devel.	<ul style="list-style-type: none"> • Siegler et al. (2014) on Research Methods • Research Methods Tutorial- Introduction of ELA2
3	T February 3	1.2. Evaluating and Synthesizing Research in Cog. Devel. (Teams 5-9) Or Literature Search Lab (Teams 1-4)	<ul style="list-style-type: none"> • Work on ELA2 with team
	TH February 5	1.2. Evaluating and Synthesizing Research in Cog. Devel. (Teams 1-4)/ Literature Search Lab (Teams 5-9)	<ul style="list-style-type: none"> • Work on ELA2 with team
Friday Feb 6- ELA2 Due- Submit to SafeAssign			
4	T February 10	1.3. Gene-Environment Interaction	<ul style="list-style-type: none"> • TIME article • Excerpt from Bjorklund Ch. 2 • Reading Journal/Homework
	TH February 12	1.3. Brain Development	<ul style="list-style-type: none"> • Watch PBS Video- <i>The Baby's Mind: Wider than the Sky</i> • Term Project Step 1- Articles and paragraphs due
5	T February 17	1.4. Infant Sensation and Perception <ul style="list-style-type: none"> • In-class analysis of empirical paper 	<ul style="list-style-type: none"> • Bjorklund on Perception • Pascalis et al. (2002) • Reading Journal/Homework
	TH February 19	1.4. Infant Sensation and Perception	<i>Feedback on TP Step 1</i>
6	T February 24	Test 1	Prep for Test 1
Unit 2: The Development of Basic Thinking Skills: Attention, Representation, Conceptual Development, and Memory			
	TH February 26	2.1. Attention and basic processes	<ul style="list-style-type: none"> • Bjorklund (2005) Chapter 1. • Fisher, Godwin, and Seltman (2014) • Reading Journal/Homework
7	T March 3	2.1. Attention and Basic processes	

	TH March 5	In Class Peer Review Workshop- Term Project	Term Project Step 2- Article Summaries due (bring copies to class)
8	T March 10	2.2. Representation and Symbolic Development	<ul style="list-style-type: none"> • Siegler et al. (2014) • Dixon (2003)- <i>The Drawbridge Studies</i> Reading Journal/Homework
	TH March 12	2.2. Representation and Symbolic Development	<ul style="list-style-type: none"> • DeLoache et al. (1997) <i>The credible shrinking room</i>
March 14-22 Spring Break			
9	T March 24	2.3. Conceptual Development	Hamlin et al (2007) Quinn (2002) Reading Journal/Homework
	TH March 26	2.3. Conceptual Development	Allison Gopnik Ted Talk Term Project Step 3- Literature Reviews due
10	T March 31	2.4. Memory Development	Siegler (2005) Chapter 7-Memory Devel Reading Journal/homework
	TH April 2	2.4. Memory Development	
11	T April 7	Test 2	Prep for Test 2
Unit 3: The Development of Complex Thinking Skills: Language, Problem Solving, Academic Skills, and Intelligence			
	TH April 9	3.1. Language Development	Dixon et al. (2003)- <i>Language Development and The Big Bang Theory</i> Saffran (2003) Reading Journal/Homework
12	T April 14	3.1. Language Development	Term Project Step 4- Advice Column Due
	TH April 16	3.2. Reasoning and Problem Solving	Kahneman (2012) excerpt Jacobs & Kluaczynski (2002). Reading Journal/Homework
13	T April 21	3.3. Academic Skills	Siegler and Alabali (2005) Reading Journal/Homework
	TH April 23	3.3. Academic Skills	Lukie et al. (2012)
14	T April 28	3.4. Intelligence	Term Project: Advice Column Rewrites (optional) Due
	TH April 30	3.4. Intelligence	Neisser et al. (2004) Reading Journal/Homework
15	T May 5	3.5. Intelligence	Zeskind and Ramey (1978) Reading Journal/Homework
	TH May 7	Course synthesis	
Friday May 15- 7:30AM – 10:00AM Test 3 (Final Exam)			

PSYC 430 READING LIST**SECTION 1: Foundations of Cognitive Development**

1. Siegler, R.S., & Alabali, M.W. (2005). *Children's Thinking, 4th 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. (2014). *How Children Develop* (Chapter 1, pp. 24-38). New York, NY: Worth.
4. Cloud, J. (2010). Why Your DNA Isn't Your Destiny. *Time Magazine*.
5. Bjorklund, D.F. (2011). *Children's Thinking: Cognitive Development and Individual Differences* (Excerpts from Chapter 2- *the Biological Basis of Cognitive Development UP TO PAGE 51*). Belmont, CA: Wadsworth/Thompson Learning.
6. The Secret Life of the Brain, Episode 1: The Baby's Brain.
7. Bjorklund, D.F. (2005). *Children's Thinking: Cognitive Development and Individual Differences (Chapter 7: Infant Perception*, pp. 181-201). Belmont, CA: Wadsworth/Thompson Learning.
8. Pascalis, O., de Haan, M., & Nelson, C.A. (2002). Is face processing species-specific in the first year of life? *Science*, 296, 1321-1323.

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

1. Bjorklund, D.F. (2011). *Children's Thinking: Cognitive Development and Individual Differences*, Chapter 1, 248-265.
2. Fischer, Godwin, & Seltman (2014). Visual Environment, Attention Allocation, and Learning in Young Children: When Too Much of a Good Thing May Be Bad. *Psychological Science*, 25(7), 1362-1370
3. Siegler, R., Deloache, J., & Eisenberg, N. (2014). *How Children Develop* (Chapter 4, pp. 130-143). New York, NY: Worth.
4. Dixon, W.E. (2003). *Twenty Studies that Revolutionized Child Psychology. (The Drawbridge Studies*, pp.60-72). Upper Saddle River, NJ: Prentice Hall.
5. 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.
6. Hamlin, J.K., Wynn, K., & Bloom, P. (2007). Social evaluation by preverbal infants. *Nature*, 450, 557-560.
7. Quinn et al (2002), Category Representation in Young Infants, *Current Directions in Psychological Science*, 11(2), 66-70.
8. Alison Gopnik TED talk: https://www.ted.com/talks/alison_gopnik_what_do_babies_think
9. Siegler, R.S., & Alabali, M.W. (2005). *Children's Thinking, 4th Edition (Chapter 7: Memory Development*, pp. 183-225). *Children's Thinking* (4th Ed.). Upper Saddle River, NJ: Prentice Hall.

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

1. Siegler, R., Deloache, J., & Eisenberg, N. (2014). *How Children Develop* (Chapter 7, Language Development). New York, NY: Worth.
2. 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.
3. Saffran, J. (2003). Statistical language learning; Mechanisms and constraints. *Current Directions in Psychological Science*, 12(4), 110-114.
4. Kahneman, D. (2012). Thinking Fast and Slow (excerpt published in *Scientific American*: <http://www.scientificamerican.com/article/kahneman-excerpt-thinking-fast-and-slow/>
5. 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.
6. Lukie, Skwarchuk, LeFevre, and Sowinski (2014). The Role of Child Interests and Collaborative Parent-Child Interactions in Fostering Numeracy and Literacy Development in Canadian Homes, *Early Childhood Education Journal*. 42:251-259.
7. 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.
8. 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.