Cognitive Development PSY 475/575 Winter 2018

Tuesday/Thursday 4:00-5:20 PM 245 Straub

Instructor: Dr. Eric Pakulak LISB 123

pak@uoregon.edu

Office hours: MW 4-5 PM

or by appointment

<u>Teaching Assistant:</u> Elizabeth Loi

STB 439

eloi@uoregon.edu

Office hours: F 9:45 AM – 11:45 AM

or by appointment

<u>Course overview</u>: This course will provide an introduction into the core issues and scientific methods of studying cognitive development. It is difficult to discuss cognition without discussing biology; therefore, this class will emphasize the contributions of cognitive neuroscience to various issues of cognitive development. The course will cover the development of cognition from infancy through adolescence, focusing on early childhood, including topics of perception, attention, language, memory, executive function, social cognition, atypical development, the effects of early experience associated with adversity and related neuroplasticity of the developing brain, and broader issues surrounding cognitive development and society, in particular public interpretations of scientific evidence.

<u>Canvas:</u> There will be a Canvas website developed for this class, which can be found at https://canvas.uoregon.edu. This site will provide supplemental information for the course (copies of lecture slides, assignments, etc.). If you are having any difficulties using this site, please refer to https://library.uoregon.edu/cmet/canvas/help or go to the Knight Library Center for Media and Educational Technologies (CMET).

<u>Required readings:</u> There is not textbook for this course. Selected readings as assigned will be posted in the "Readings" section of Canvas. In this section, you will find weekly folders with details about both required and recommended readings for each lecture.

<u>iClicker</u>: You will also need an iClicker remote for this course and will need to register your iClicker on Canvas. Beginning with Week 2 you will need to bring your iClicker to every class. **Clicker numbers must be registered on Canvas by Tuesday, Oct. 3 or you will not receive credit** for in-class participation or micro-quizzes.

<u>Course Format</u>: The material in this course will be presented through a combination of assigned readings, class lectures, in-class discussion, and demonstrations. Lecture material and readings will overlap, but will not be replications of each other; some lecture material will not be covered in the readings and vice versa. Lecture slides will be posted on Canvas immediately following the day's lecture; slides will not be posted before class in order to preserve the novelty of in-class demonstrations and discussions.

You are expected to do the assigned reading **BEFORE** the class period in which it is due. Reading the material before the corresponding lectures will help your performance in two ways. First, presentation of the material during lecture will be more fruitful if you have at least a general understanding of the material beforehand, helping you to ultimately comprehend and retain the material. Second, questions drawn from the assigned readings may be included on the micro-quizzes, *even if they have not yet been discussed in lecture (see below)*. This is a fast-paced class and you should plan on scheduling regular intervals of time for

studying outside of class.

<u>Micro-quizzes</u>: Starting with Week 2, there will be a micro-quiz for each lecture. These quizzes will typically take the form of several multiple choice questions, and will either be administered in class via iClicker or on Canvas following each day's lecture. If there is no in-class micro-quiz, you will find the micro-quiz under the "Assignments" tab. These are designed to serve as quick reviews of recently covered material as well as to encourage you to attend class and keep up with reading assignments. Micro-quizzes may either contain material from the most recent lecture or from the assigned reading that has not yet been discussed in class.

For micro-quizzes administered on Canvas, you must complete each of these quiz questions within 24 hours of the lecture, at which point the questions will be no longer available. Any micro-quiz not completed within this period will receive a score of zero. If you miss class on the day of a micro-quiz that is administered in class, you will also receive a score of zero. There will be NO exceptions in either case. Your lowest <u>two</u> micro-quiz grades will be dropped from your overall grade.

<u>Course Evaluation</u>: There will be three closed-book exams that will consist of multiple choice, true/false, fill-in-the-blank, short-answer, and/or short essay questions and will cover material from the assigned readings **AND** lectures. While there will be substantial overlap between lecture and text materials, we will cover additional material during lectures. So you will need to attend lectures in order to do well in the course. Note that **Exam 3**, while given at the time designated for the final exam, **will not be comprehensive**. It is weighted slightly more than the other two exams because it will cover more material, but all of this material will be that covered after Exam 2.

In addition, there will be a 5-7 page (double-spaced) research proposal paper in the form of a research proposal, details of which can be found on a separate handout.

<u>Class participation</u>: Regular attendance and in-class participation are encouraged, and you may be able to improve your grade a little bit by regularly participating in class. Opportunities for class participation are randomized across classes and during each class, and iClickers will be used for participation in class demonstrations and will thus document your in-class participation across the term.

<u>Cell Phones</u>: Because cell phone usage in class is distracting to the instructor and your fellow students, cell phones are prohibited in class **for any purpose** (e.g., talking, texting, internet browsing). Out of consideration for others, please respect this rule.

Grading:

Exams, quizzes, and research proposal paper will be awarded points as follows for the final course grade:

Exam 1: 200 points
Exam 2: 200 points
Exam 3: 250 points

Micro-quizzes: **100 points (total percentage correct across 13 counting micro-quizzes)**Research proposal paper: **250 points** (see separate sheet for details on the paper assignment)

TOTAL POSSIBLE: 1000 points

If your accumulated points are:

900-1000, your grade will be an A 800-899, your grade will be a B 700-799, your grade will be a C 600-699, your grade will be a D < 600, your grade will be an F

Within each letter grade, a plus may be assigned to scores within the top ~2% and a minus may be assigned to scores within the bottom ~2%. I may choose to curve grades at the end of the quarter – but I will not curve downwards to lower grades. Graduate students (PSY 575) will have additional requirements for the research proposal paper as outlined in the paper assignment.

<u>Late Work</u>: All dates and assignments are available at the beginning of the term, providing adequate time for preparation of projects and for exams. Please plan ahead and do not wait until the last minute to work on assignments. Late work is **not** accepted and any assignments turned in late will receive a grade of **zero**.

<u>Learning Goals:</u> Upon completing this course, students should have a broad knowledge of cognitive development and be skilled at reading, evaluating, and communicating about the primary scientific literature on cognitive development. More specifically, they should be able to:

- 1. Identify major theories, research findings, and methodological approaches in cognitive development and apply research findings to human behavior in everyday life.
- 2. Identify key research questions and hypotheses in primary scientific papers and critically evaluate the evidence presented.

<u>Students with Disabilities</u>: If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with the instructor as soon as possible. Also, please contact the Accessible Education Center at the U of O to request a letter verifying your disability. For more information about the resources provided by the Accessible Education Center, please go their website http://aec.uoregon.edu/.

<u>Students for whom English is a Second Language</u>: If you are a non-native English speaker and think you may have trouble in this course due to language difficulties, please see the instructor as soon as possible to make special arrangements. Please note that you may NOT use dictionaries/translators during tests without discussing arrangements with the instructor at the beginning of the term.

<u>Academic Learning Services</u>: If you have difficulty with the course materials at any time, you are encouraged to contact the instructor or TA so that we can provide timely assistance. In addition, the resources of the Teaching and Learning Center (http://tlc.uoregon.edu/) can be invaluable to students who require assistance in, for example, perfecting good study habits or honing their writing skills.

<u>Prohibited Discrimination and Harassment Reporting</u>: Any student who has experienced sexual assault, relationship violence, sex or gender-based bullying, stalking, and/or sexual harassment may seek resources and help at safe.uoregon.edu. To get help by phone, a student can also call either the UO's 24-hour hotline at 541-346-7244 [SAFE], or the non-confidential Title IX Coordinator at 541-346-8136. From the SAFE website, students may also connect to Callisto, a confidential, third-party reporting site that is not a part of the university.

Students experiencing any other form of prohibited discrimination or harassment can find information at respect.uoregon.edu or aaeo.uoregon.edu or contact the non-confidential AAEO office at 541-346-3123 or the Dean of Students Office at 541-346-3216 for help. As UO policy has different reporting requirements based on the nature of the reported harassment or discrimination, additional information about reporting requirements for

discrimination or harassment unrelated to sexual assault, relationship violence, sex or gender based bullying, stalking, and/or sexual harassment is available at http://aaeo.uoregon.edu/content/discrimination-harassment.

Specific details about confidentiality of information and reporting obligations of employees can be found at https://titleix.uoregon.edu.

<u>Mandatory Reporting of Child Abuse</u>: UO employees, including faculty, staff, and GEs, are mandatory reporters of child abuse. This statement is to advise you that that your disclosure of information about child abuse to a UO employee may trigger the UO employee's duty to report that information to the designated authorities. Please refer to the following links for detailed information about mandatory reporting: https://hr.uoregon.edu/policies-leaves/general-information/mandatory-reporting-child-abuse-and-neglect/presidents-message

<u>Academic Honesty</u>: Short version: Don't cheat. Don't plagiarize. All work submitted via Canvas will be assessed for originality by VeriCite software. If you have any questions, please ask me.

All work submitted in this course must be **your own and produced exclusively for this course**. The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students' obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at researchguides.uoregon.edu/citing-plagiarism.

Violations will be taken <u>seriously</u> and are noted on student disciplinary records. If you are in doubt regarding any aspect of these issues as they pertain to this course, please consult with the instructor before you complete any relevant requirements of the course.

Course Schedule

This is the current course schedule; it may be revised as the term progresses. Dates on which particular topics are to be presented in lecture are subject to change, as are reading assignment due dates; however, I will not change the dates of exams unless absolutely necessary. Due dates for the research proposal topic and research proposal paper will not change. I will send out an announcement via Canvas alerting you to any changes and the official updated version of the schedule will reside on the Canvas web site.

Data	
Date	Topic
Jan. 9	Introduction to course
	How to read a research paper
Jan. 11	Research paper in focus: Thomsen et al., 2010
	How do you study cognitive development?
	Developmental methods
Jan. 16	Brain basics and brain development
	Neuroimaging methods
Jan. 18	Infant perception
Jan. 23	Mental representation in infancy
Jan. 25	Social cognition/socio-emotional processing
Jan. 30	EXAM #1
Feb. 1	Language development
Feb. 6	Language development
Feb. 8	Language development
	Research proposal topic due by 6 PM
Feb. 13	Reading and math skills
Feb. 15	Memory
Feb. 20	Executive function/attention
Feb. 22	EXAM #2
Feb. 27	Developmental disorders – (guest lecture: Elizabeth Loi)
Mar. 1	Neuroplasticity and early experience
Mar. 6	Neuroplasticity and early experience
Mar. 8	Neuroplasticity and early experience – training and
	interventions
Mar. 13	Training and interventions
Mar. 15	Development and society – policy, the press (guest:
	science journalist Anne Bridgman)
Mar. 16	FINAL RESEARCH PROPOSAL PAPER DUE BY 11 PM
Mar. 22	EXAM #3 Thursday March 22 12:30 PM